

**Ground-Water Levels**

**in the United States**

**1956-60**

**Southwestern States**

**Prepared under the direction of O. M. HACKETT, Chief, Ground Water Branch**

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**Geological Survey Water-Supply Paper 1770**

**Prepared in cooperation with the States  
of Arizona, California, Hawaii, Nevada,  
and New Mexico, and with other agencies**



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#### PREFACE

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GROUND-WATER LEVELS IN  
THE UNITED STATES

1956-60

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**SOUTHWESTERN STATES**

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**INTRODUCTION**

By O. M. Hackett

Publication of records of water levels in the United States in the annual series of water-supply papers was begun by the Geological Survey in 1935. From 1935 through 1939, 5 volumes were issued as Water-Supply Papers 777, 817, 840, 845, and 886. From 1940 through 1955, 6 volumes, each for a separate section of the United States as shown in figure 1, were published annually. The following table gives the numbers of water-supply papers by year and section.

Year	North-eastern (1)	South-eastern (2)	North-central (3)	South-central (4)	North-western (5)	South-western (6)
1940	906	907	908	909	910	911
1941	936	937	938	939	940	941
1942	944	945	946	947	948	949
1943	986	987	988	989	990	991
1944	1016	1017	1018	1019	1020	1021
1945	1023	1024	1025	1026	1027	1028
1946	1071	1072	1073	1074	1075	1076
1947	1096	1097	1098	1099	1100	1101
1948	1126	1127	1128	1129	1130	1131
1949	1156	1157	1158	1159	1160	1161
1950	1165	1166	1167	1168	1169	1170
1951	1191	1192	1193	1194	1195	1196
1952	1221	1222	1223	1224	1225	1226
1953	1265	1266	1267	1268	1269	1270
1954	1321	1322	1323	1324	1325	1326
1955	1404	1405	1406	1407	1408	1409
1956	....	....	1456	....	....	....
1956-57	1537	....	....	....	....	....
1956-58	....	1538	....	....	....	....
1956-59	....	....	....	1549	....	....
1956-60	....	....	....	....	1760	....
1956-60	....	....	....	....	....	1770

The program begun in 1956 provides for the publication of 5 years of record in 1 volume for each geographic section. During a 4-year transitional period, however, 4 of the volumes will not contain 5 years of record, as shown in the following schedule:

- North-central: 1956, 1957-61, 1962-66, etc.
- Northeastern: 1956-57, 1958-62, 1963-67, etc.
- Southeastern: 1956-58, 1959-63, 1964-68, etc.
- South-central: 1956-59, 1960-64, 1965-69, etc.
- Northwestern: 1956-60, 1961-65, 1966-70, etc.
- Southwestern: 1956-60, 1961-65, 1966-70, etc.

Moreover, beginning in 1956, only water-level data from a basic network of observation wells has been published. The minimum basic network provides observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers. In some States the basic network forms the skeletal index of a more comprehensive observation-well program. Publications that contain substantial additional water-level data are listed at the end of each State report in this volume.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a precise datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. A plus sign (+) is placed before a measurement if the level is above the plane of reference. Measurements of water levels in wells equipped with recording gages are given for every fifth day and the end of each month (eom).

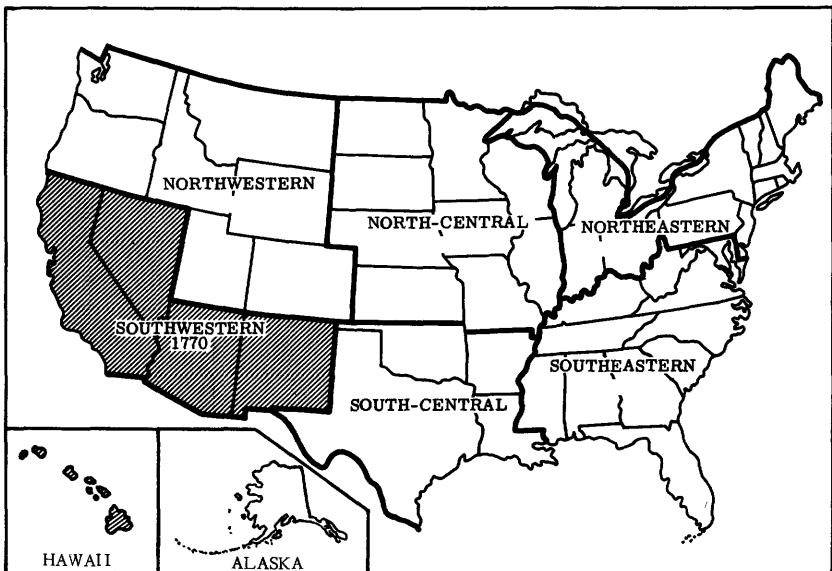


Figure 1.--Outline map of the United States, showing States included in this volume.

In the collection of water-level data to serve the objectives of the observation-well program, the problem generally is to measure changes in water level accurately, rather than to determine the absolute position of the water surface. Because the measurements are made in many types of wells, under varying conditions of access and at different temperatures, neither the method of measuring nor the equipment can be standardized. At each observation well, however, the best possible combination of measuring technique and equipment is selected, and so long as it is not changed, the measurements at each well will be consistent.

Water levels are reported to as many significant figures as can be justified by the local conditions and the end use of the information. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, in view of the principal use to which the data are put, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Joy L. Charbonneau was responsible for the compilation of this report; James O. Runyan was responsible for the illustrations.

## ARIZONA

By M. B. Booher and E. K. Morse

The observation-well program in Arizona, continued during 1956 through 1960, is an integral part of the Statewide ground-water survey conducted by the U. S. Geological Survey, Ground Water Branch, in cooperation with the Arizona State Land Department.

Irrigation districts, cities, well drillers, water and power companies, government agencies, and individuals have been helpful in providing data. Figure 2 shows the location of observation wells included in this report.

### Well-Numbering System

The well numbers used by the U. S. Geological Survey in Arizona are in accordance with the Bureau of Land Management's system of land subdivision. The land survey in Arizona is based on the Gila and Salt River meridian and base line, which divide the State into four quadrants. These quadrants are designated counterclockwise by the capital letters A, B, C, and D. All land north and east of the point of origin is in A quadrant, that north and west in B quadrant, that south and west in C quadrant, and that south and east in D quadrant. The first digit of a well number indicates the township, the second the range, and the third the section in which the well is situated. The lowercase letters a, b, c, and d after the section number indicate the well location within the section. The first letter denotes a particular 160-acre tract, the second the 40-acre tract, and the third the 10-acre tract. These letters also are assigned in a counterclockwise direction, beginning in the northeast quarter. If the location is known within a 10-acre tract, three lowercase letters are shown in the well number. For example, well number (D-4-5) 19caa designates the well in NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 19, T. 4 S., R. 5 E. Where there is more than one well within a 10-acre tract, consecutive numbers beginning with 1 are added as suffixes.

### Well Descriptions and Water-Level Measurements

Water levels are reported in feet below land-surface datum, unless otherwise indicated.

#### Apache County

(A-13-28)29ca. E. L. Johns. Drilled domestic water-table well in gravel, diam 12 in, depth 50 ft, cased to 50. Lsd 5,775 ft above msl. MP top of casing, 1,60 ft above lsd. Highest water level 8.4 below lsd, Aug. 7, 1950; lowest 30.9 below lsd, May 3, 1956. Records available: 1944-58, 1960. No measurement made in 1959. May 3, 1956, 30.9; Oct. 23, 24.2; May 15, 1957, 28.2; Oct. 21, 22.8; Apr. 21, 1958, 23.3; Oct. 17, 1958, 23.0; Feb. 12, 1960, 22.9.

#### Cochise County

(D-12-27)32aab. Creighton. Drilled stock water-table well in alluvial fill, diam 6 in, reported depth 250 ft. Lsd about 3,980 ft above msl. MP top of casing, 2.00 ft above lsd. Highest water level 132.5 below lsd, Dec. 20, 1956; lowest 137.2 below lsd, Dec. 12, 1954. Records available: 1952-54, 1956-57, 1959-60. No measurement made in 1955 or 1958.

Date	Water level						
Jan. 21, 1952	133.4	Dec. 12, 1954	137.2	Oct. 9, 1956	134.9	July 17, 1957	135.6
Jan. 12, 1953	133.1	May 22, 1956	133.2	Nov. 15	133.1	Sept. 11	135.4
Mar. 6	133.1	July 12	a133.8	Dec. 20	132.5	Dec. 9	134.9
Jan. 27, 1954	133.0	Aug. 7	133.1	Jan. 21, 1957	a134.6	Jan. 21, 1959	132.9
Nov. 8	a132.8	Sept. 12	133.0	Mar. 8	133.8	Jan. 20, 1960	133.8

a Well being pumped.

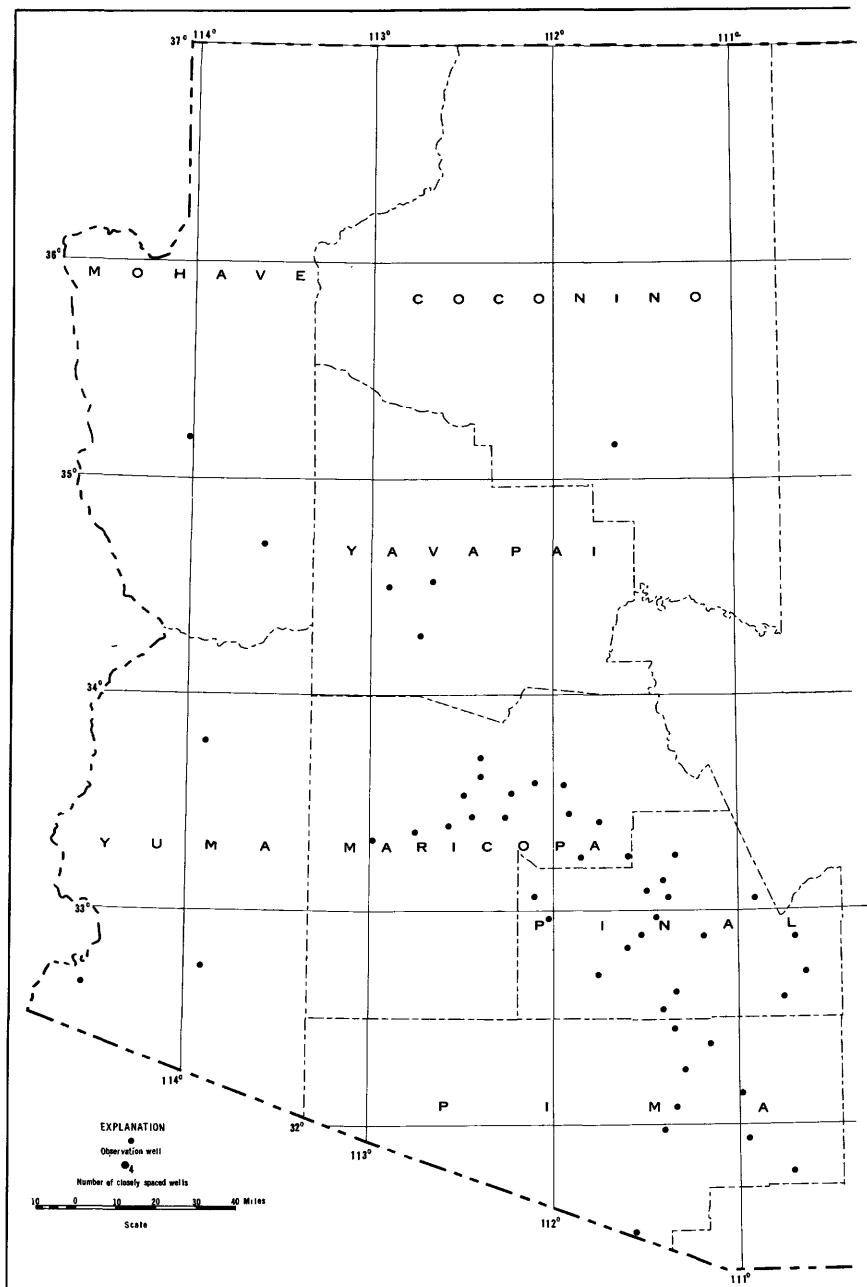
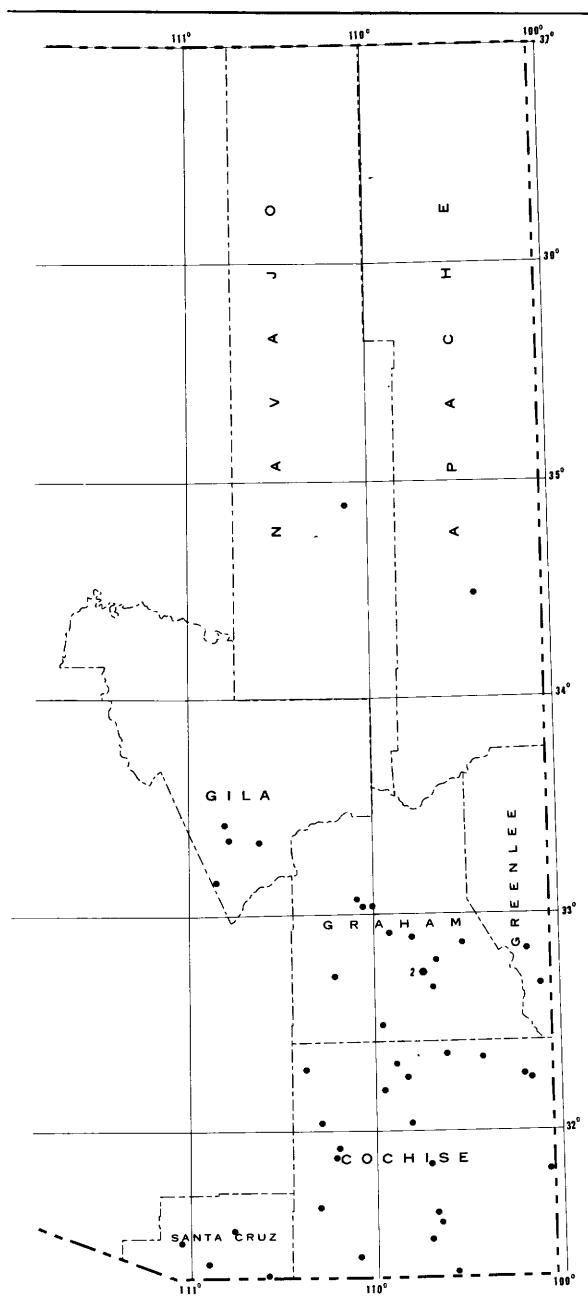


Figure 2.--Location of observation



wells in Arizona, 1956-60.

(D-13-19)23dad. Reed. Drilled stock water-table well in alluvial fill, diam 6 in, reported depth 85 ft. Lsd about 3,150 ft above msl. MP top of casing, 3.50 ft above lsd. Highest water level 37.1 below lsd, Feb. 24, 1960; lowest 49.8 below lsd, May 28, 1954. Records available: 1949-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 7, 1949	40.2	Jan. 19, 1953	b37.4	Oct. 7, 1955	a49.1	Nov. 19, 1956	42.8
Apr. 4, 1950	41.2	Apr. 16	a39.3	Jan. 27, 1956	b42.7	Dec. 17	43.7
Sept. 20	39.1	July 23	39.4	May 26	b48.8	Mar. 5, 1957	45.2
Dec. 18	41.9	Nov. 4	46.1	June 18	41.7	July 9	a51.2
Apr. 11, 1951	41.0	Feb. 23, 1954	42.4	July 16	b46.2	Sept. 9	a47.7
Dec. 19	46.1	May 28	49.8	Aug. 13	43.0	Apr. 9, 1958	45.2
Apr. 16, 1952	39.3	Aug. 25	45.9	Sept. 10	44.0	Feb. 11, 1959	38.1
Sept. 9	b36.8	Nov. 19	a49.5	Oct. 8	43.6	Feb. 24, 1960	37.1
Nov. 18	b37.5						

a Well being pumped.

b Well pumped recently.

(D-13-24)16bbb. State of Arizona. Drilled observation water-table well in alluvial fill, diam 16 in, depth 1,356 ft. Lsd about 4,210 ft above msl. MP top of casing, 1.70 ft above lsd (since Feb. 25, 1952). Highest water level 29.7 below lsd, May 13, 1942; lowest 122.5 below lsd, Sept. 20, 1960. Records available: 1942, 1944-60. Recorder installed Feb. 22, 1952.

May 13, 1942	29.7	Dec. 11, 1946	32.6	Feb. 28, 1949	39.5	Feb. 19, 1951	44.7
June 8, 1944	31.0	Feb. 25, 1947	33.6	July 7	41.1	Apr. 26	45.1
Oct. 16, 1945	31.9	June 11	34.1	Oct. 14	42.4	May 28	45.6
Jan. 24, 1946	32.1	Aug. 27	35.0	Dec. 15	42.1	July 17	46.8
Mar. 26	32.1	Sept. 24	35.2	Mar. 8, 1950	41.9	Oct. 2	48.1
May 3	32.2	June 16, 1948	37.1	June 26	43.5	10	48.3
June 10	32.4	Aug. 12	37.9	Sept. 6	44.3	Jan. 3, 1952	48.1
July 26	32.8	Oct. 13	38.9	Dec. 14	45.0	29	48.0
Oct. 15	32.2						

#### Highest water level for the day, from recorder graph, 1952

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	....	....	48.2	48.2	48.7	49.4	50.2	50.9	51.7	52.4	52.8	52.6
10	....	....	48.2	48.3	48.8	49.4	50.3	51.1	51.9	52.5	52.8	52.6
15	....	....	48.1	48.4	48.9	49.6	50.5	51.2	52.1	52.6	52.7	52.5
20	....	....	48.2	48.4	49.0	49.8	50.6	51.3	52.2	52.7	52.7	52.4
25	....	48.3	48.1	48.5	49.1	49.9	50.7	51.4	52.3	52.7	52.7	52.4
Eom	....	....	48.2	48.6	49.3	50.0	50.8	51.6	52.3	52.8	52.6	52.4

1953

5	52.4	....	52.0	52.3	53.5	54.8	56.0	57.0	58.2	....	58.8	....
10	52.4	....	52.0	52.6	53.6	55.0	55.8	57.0	58.5	....	58.8	58.3
15	52.3	52.1	52.0	52.8	53.7	54.9	55.9	57.3	58.9	59.0	....	58.3
20	....	52.1	52.0	53.0	53.8	55.2	56.1	57.6	....	59.0	....	58.2
25	....	52.1	52.0	53.2	54.1	55.4	56.6	57.9	....	58.9	....	58.2
Eom	....	....	52.1	53.2	54.5	55.7	56.6	58.1	....	58.9	....	58.1

1954

5	58.0	57.6	57.4	57.9	59.3	60.6	61.9	62.1	63.6	64.2	64.2	63.6
10	58.0	57.6	57.3	58.4	59.5	60.8	62.3	62.1	63.8	64.3	64.1	63.4
15	57.8	57.5	57.3	58.5	59.6	61.2	62.5	62.3	64.2	64.3	63.9	63.4
20	57.8	57.5	57.5	59.0	59.6	61.5	62.4	62.4	64.1	64.3	63.9	63.2
25	57.7	57.4	57.4	59.0	59.9	61.6	61.8	63.0	64.2	64.3	63.8	63.1
Eom	57.7	....	57.5	59.1	60.2	61.8	61.9	63.3	64.1	64.2	63.7	63.0

1955

5	62.8	62.3	62.1	63.2	66.4	73.2	76.1	78.6	80.8	79.7	76.4	74.4
10	62.8	62.2	62.2	64.0	66.5	73.9	77.3	79.4	79.6	79.0	76.0	74.1
15	62.7	62.1	62.3	65.0	68.3	73.0	78.4	79.3	81.3	78.4	75.7	73.8
20	62.6	62.0	62.3	66.1	70.2	72.4	78.7	80.1	81.8	77.7	75.4	73.6
25	62.5	62.0	62.4	66.6	71.9	72.2	78.8	79.1	81.0	77.3	75.1	73.4
Eom	62.4	....	62.6	66.5	71.9	74.5	77.7	79.5	80.3	76.9	74.7	73.3

1956

5	73.0	71.7	70.7	76.7	80.9	80.7	86.9	88.1	90.1	88.1	83.7	81.0
10	72.7	71.5	70.6	78.0	81.3	80.9	87.3	88.0	91.2	87.2	83.1	80.7
15	72.5	71.3	70.6	78.9	82.5	83.1	87.8	89.1	91.7	86.5	82.6	80.4
20	72.3	71.2	70.6	79.6	82.2	84.7	87.9	89.2	91.1	85.8	82.2	80.1
25	72.2	71.0	73.1	80.3	81.1	85.9	87.9	89.6	91.4	85.0	81.8	79.8
Eom	72.0	....	75.5	80.4	80.8	86.2	88.4	89.9	89.9	84.4	81.4	79.5

(D-13-24)16bbb--Continued.

1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	79.1	77.6	77.3	81.4	86.0	91.0	88.4	86.7	88.9	91.0	86.0	83.5
10	78.8	77.4	77.4	81.8	86.9	e90.6	87.9	86.9	90.7	89.5	85.5	83.3
15	78.5	77.2	78.2	81.8	88.0	e90.1	88.0	88.7	92.8	88.8	85.0	83.0
20	78.3	77.2	78.8	82.2	88.9	e89.7	88.7	89.0	94.0	88.0	84.7	82.9
25	78.0	77.0	78.8	84.2	89.6	e89.3	89.5	88.6	94.1	87.3	84.2	82.8
Eom	77.8	....	79.5	85.6	89.8	e88.8	87.6	88.9	92.6	86.6	83.9	82.6

1958

5	82.0	81.0	79.6	81.1	86.3	92.9	99.9	105.2	105.0	99.8	91.6	88.1
10	82.0	81.0	79.3	82.0	87.2	95.0	99.6	105.2	105.3	98.3	91.0	87.5
15	81.6	80.8	79.1	83.6	88.1	97.0	101.9	106.3	104.8	96.8	90.2	87.8
20	81.3	80.5	79.0	83.7	89.0	96.6	103.2	107.0	104.2	95.3	89.7	88.1
25	81.0	80.0	78.9	84.5	90.3	97.2	105.2	105.8	102.8	94.1	88.9	87.6
Eom	80.8	....	80.0	85.4	91.1	99.2	105.8	105.8	101.3	93.0	88.5	87.6

1959

5	86.9	87.3	91.5	102.3	107.2	112.2	105.8	111.7	108.4	108.3	99.2	95.4
10	86.5	88.3	92.5	104.9	105.2	112.2	105.1	111.3	109.2	107.1	98.3	94.9
15	86.2	88.4	93.2	104.4	106.5	111.2	107.6	110.8	110.2	105.7	97.5	94.3
20	85.8	89.4	93.2	105.2	108.6	109.7	109.7	110.2	111.0	103.7	96.7	93.8
25	86.0	90.4	93.6	107.0	110.1	109.3	110.8	107.4	110.8	101.8	96.3	93.3
Eom	87.1	....	97.1	108.9	112.1	109.2	112.0	107.4	109.4	100.6	95.9	92.9

1960

5	92.5	92.2	96.8	105.0	109.8	115.4	114.8	117.6	120.3	121.6	110.9	103.7
10	92.1	93.2	98.0	105.9	110.4	114.7	115.1	117.6	121.1	119.5	109.0	103.1
15	91.7	93.7	99.2	107.8	112.5	114.0	116.4	117.4	121.8	117.4	107.5	102.4
20	91.6	93.8	100.6	107.2	112.6	113.8	117.8	118.5	122.5	115.2	106.3	101.9
25	91.2	94.7	102.0	108.5	113.5	113.9	118.8	119.4	121.9	112.9	105.3	101.4
Eom	90.9	....	103.8	109.5	115.2	114.2	117.1	120.0	122.4	112.1	104.5	100.9

e Estimated.

(D-13-29)6ccc. A. R. Spikes. Drilled stock and irrigation artesian well in sand and gravel, diam 6 in, reported depth 835 ft. Lsd about 3,675 ft above msl. MP top east side of casing, 0.20 ft above lsd. Highest water level 9.5 below lsd, May 2, 1941; lowest 116.1 below lsd, Jan. 22, 1960. Records available: 1941-42, 1944, 1946-47, 1949-52, 1954-57, 1959-60. No measurement made in 1958. Jan. 12, 1956, 87.9; Apr. 12, 107.2; Jan. 24, 1957, 110.1; Dec. 11, 109.0; Jan. 22, 1959, 111.5; Jan. 22, 1960, 116.1.

(D-13-31)30cdc. Elmer Franklin. Drilled domestic water-table well in sand and gravel, diam 4 in, depth 72 ft. Lsd about 3,610 ft above msl. MP top of 4- x 4-in pipe clamp, 1.70 ft above lsd. Highest water level 58.7 below lsd, Nov. 2, 1949; lowest 70.1 below lsd, July 1, 1955. Records available: 1940-42, 1944, 1946-57, 1959-60. No measurement made in 1958. Jan. 12, 1956, 64.6; Apr. 12, 65.4; Jan. 23, 1957, 67.7; Dec. 17, 64.8; Jan. 23, 1959, 64.7; Jan. 22, 1960, 66.1.

(D-14-23)36baa. Fay Proctor. Drilled domestic and stock water-table well in sand and gravel, diam 6 in, depth 50 ft. Lsd about 4,210 ft above msl. MP top of 4- x 4-in clamp, 1.20 ft above lsd. Highest water level 36.0 below lsd, May 13, 1942; lowest 43.5 below lsd, July 15, 1957. Records available: 1942, 1944-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 9, 1956	42.3	Aug. 6, 1956	42.1	Jan. 22, 1957	42.4	Mar. 24, 1958	42.2
May 21	41.4	Nov. 13	a42.9	July 15	43.5	Jan. 7, 1959	42.6
July 9	42.1	Dec. 21	42.6	Sept. 10	42.9	Jan. 18, 1960	41.2

a Well being pumped.

(D-14-25)6cac. E. T. Dunlap. Drilled domestic water-table well in sand and gravel, diam 6 in, depth 34 ft. Lsd about 4,166 ft above msl. MP top of concrete curb, 0.20 ft above lsd. Highest water level 9.8 below lsd, Oct. 21, 1955; lowest 21.2 below lsd, Jan. 7, 1959. Records available: 1942, 1944-57, 1959-60. No measurement made in 1958.

Apr. 9, 1956	20.8	Sept. 6, 1956	18.9	Jan. 22, 1957	19.1	Dec. 18, 1957	19.5
May 21	18.6	Oct. 11	18.5	Mar. 6	19.0	Jan. 7, 1959	21.2
July 9	18.7	Nov. 13	19.0	July 15	19.6	Jan. 18, 1960	20.4
Aug. 6	18.8	Dec. 21	19.0	Sept. 10	19.3		

(D-14-31)3ddd. A. G. Pierce. Drilled unused artesian well in sand, diam 8 in, reported depth 400 ft. Lsd about 3,690 ft above msl. MP top of casing, 1.60 ft above lsd. Highest water level 17.2 below lsd, Apr. 24, 1942; lowest 72.9 below lsd, July 20, 1959. Records available: 1941-42, 1946-60. Recorder removed July 20, 1960.

(D-14-31)3ddd--Continued.

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	49.7	48.7	48.3	53.2	55.2	57.4	59.8	61.4	62.9	61.3	58.4	55.9
10	49.5	48.5	49.0	53.7	55.9	57.8	60.2	61.7	63.0	60.5	58.0	55.4
15	49.2	48.3	49.8	54.0	55.6	57.6	60.6	62.2	63.2	60.0	57.6	54.8
20	49.0	48.2	50.8	54.1	55.4	58.2	60.6	62.1	63.4	60.0	57.2	54.4
25	49.0	48.2	51.7	54.6	56.3	58.8	60.9	62.3	62.9	59.3	56.7	54.0
Eom	48.9	...	52.4	54.9	56.7	59.5	61.1	62.5	62.1	58.9	56.3	53.5
1957												
5	53.0	50.9	50.4	50.9	54.5	55.8	59.9	60.3	59.9	60.1	56.7	55.7
10	52.6	50.6	50.7	51.2	54.8	56.9	60.5	60.6	59.5	59.5	56.3	55.2
15	52.2	50.3	50.9	52.2	55.0	57.7	60.7	60.6	59.8	58.9	55.9	54.7
20	51.8	50.1	50.8	53.2	54.6	58.4	60.9	60.6	60.5	58.3	56.2	54.2
25	51.5	50.2	50.7	53.9	54.5	59.2	61.3	60.4	61.0	57.8	56.2	53.9
Eom	51.2	...	50.9	54.5	55.3	59.6	60.7	60.3	60.6	57.3	56.1	53.6
1958												
5	53.2	51.7	50.8	52.2	56.8	59.6	62.6	64.1	65.4	62.2	58.8	56.6
10	53.0	51.5	50.6	53.8	57.2	60.1	63.0	64.4	65.6	61.6	58.5	56.3
15	52.7	51.4	50.5	54.9	57.6	60.7	63.2	64.8	65.1	60.9	58.0	56.0
20	52.4	51.2	50.4	55.6	58.0	61.1	63.2	65.0	64.3	60.3	57.7	55.7
25	52.1	51.0	50.4	56.0	58.5	61.7	63.6	65.0	63.5	59.7	57.3	55.4
Eom	51.9	...	50.9	56.4	59.0	62.2	63.9	65.1	62.9	59.3	57.0	55.2
1959												
5	54.8	54.1	53.0	57.3	59.9	68.6	68.4	70.4	71.0	66.1	62.6	60.4
10	54.6	54.2	53.0	58.1	61.1	65.5	66.8	68.0	70.6	65.2	62.1	60.1
15	54.4	54.1	53.3	58.8	64.6	65.0	66.2	68.6	70.0	64.7	61.7	59.8
20	54.1	53.6	54.0	59.6	63.3	64.8	72.9	67.6	70.2	64.0	61.4	59.5
25	53.9	53.2	55.4	60.6	62.6	66.0	68.5	68.6	69.4	63.5	61.0	59.2
Eom	55.8	...	56.3	59.7	62.7	66.9	68.9	67.4	67.2	63.1	60.6	58.9
1960												
5	58.7	57.1	56.4	63.5	64.9	66.2	...	...	...	...	...	...
10	58.3	56.9	56.3	62.4	64.9	65.7	...	...	...	...	...	...
15	58.0	56.8	57.6	62.0	63.9	67.6	...	...	...	...	...	...
20	57.8	56.6	57.2	62.0	65.5	67.3	...	...	...	...	...	...
25	57.5	56.6	71.6	61.6	68.4	...	...	...	...	...	...	...
Eom	57.3	...	64.4	61.3	66.0	...	...	...	...	...	...	...

(D-16-20)34acd. L. A. Scott. Drilled domestic and stock water-table well in sand and gravel, diam 6 in, depth 98 ft. MP top of casing, 1.50 ft above lsd. Highest water level 70.4 below lsd, June 12, 1941; lowest 85.6 below lsd, May 28, 1954. Records available: 1941-42, 1944-60. Jan. 23, 1956, 84.1; Sept. 28, 82.7; Sept. 6, 1957, 80.4; Apr. 9, 1958, 83.8; Feb. 11, 1959, 81.7; Feb. 24, 1960, 78.6.

(D-16-25)16add. W. D. Wear. Drilled stock water-table well in sand and gravel, diam 6 in, depth 65 ft. Lsd about 4,190 ft above msl. MP top of casing, 1.20 ft above lsd. Highest water level 34.0 below lsd, June 7, 1944; lowest 43.6 below lsd, Dec. 19, 1957. Records available: 1942, 1944-57, 1959-60. No measurement made in 1958. Jan. 10, 1956, 38.3; Apr. 10, 40.9; Jan. 23, 1957, 40.8; Dec. 19, 43.6; Jan. 6, 1959, 41.2; Jan. 21, 1960, 39.5.

(D-17-21)32bad. Boquillas Cattle Co. Drilled domestic and stock artesian well in sand and gravel, diam 6 in, reported depth 520 ft, cased to 500. Lsd about 3,075 ft above msl. MP top of casing, 1.30 ft above lsd. Highest water level 16.9 below lsd, Dec. 9, 1946; lowest 25.2 below lsd, Nov. 19, 1956. Records available: 1944-60.

Date	Water level						
Jan. 26, 1956	21.4	Aug. 13, 1956	22.6	Dec. 17, 1956	21.6	Apr. 10, 1958	22.8
May 25	a40.8	Sept. 10	a33.6	Mar. 5, 1957	b30.2	Feb. 13, 1959	b24.2
June 18	a26.5	Oct. 8	22.1	July 10	23.7	Jan. 20, 1960	21.6
July 16	a35.5	Nov. 19	25.2	Sept. 9	22.2		

a Well being pumped.

b Well pumped recently.

(D-18-21)6aab. Walter Haymore. Drilled domestic water-table well in sand and gravel, diam 4 in, depth 60 ft, cased to 60. Lsd about 3,620 ft above msl. MP top of casing, 1.20 ft above lsd. Highest water level 25.6 below lsd, Mar. 30, 1946; lowest 39.7 below lsd, May 28, 1954. Records available: 1944-58, 1960. No measurement made in 1959. Jan. 28, 1956, 33.9 (well being pumped); Sept. 27, 37.9; Sept. 5, 1957, 35.0; Apr. 10, 1958, 31.4; Feb. 24, 1960, 28.8.

(D-18-26)28aaa. Frank Geers. Drilled stock water-table well in sand and gravel, diam 6 in, depth 140 ft. Lsd 4, 267.8 ft above msl. MP top of casing, 1.70 ft above lsd. Highest water level 70.6 below lsd, Dec. 21, 1949; lowest 83.1 below lsd, Feb. 17, 1960. Records available: 1946-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11, 1956	78.1	Aug. 15, 1956	79.2	Jan. 22, 1957	79.2	Apr. 22, 1958	81.0
Apr. 25	78.5	Sept. 12	79.6	Mar. 6	79.1	Jan. 20, 1959	81.7
May 24	b78.6	Oct. 17	79.6	July 11	80.4	Dec. 15	83.0
June 19	79.4	Nov. 21	a80.2	Sept. 10	80.7	Feb. 17, 1960	83.1
July 17	79.0	Dec. 18	a80.0	Dec. 11	80.8		

a Well being pumped.

b Well pumped recently.

(D-18-32)33bca. Darnell. Drilled unused water-table well in alluvial fill, diam 14 in, reported depth 200 ft. Lsd about 4, 250 ft above msl. MP top of casing, at lsd. Highest water level 107.1 below lsd, Mar. 20, 1951; lowest 132.0 below lsd, Jan. 21, 1960. Records available: 1950-51, 1953-57, 1959-60. No measurement made in 1952 or 1958.

Sept. 28, 1950	107.8	Apr. 29, 1954	109.5	Mar. 22, 1955	111.6	Jan. 22, 1957	116.0
Mar. 20, 1951	107.1	Aug. 19	110.1	Oct. 4	112.9	Dec. 10	118.3
Dec. 15, 1953	108.5	Nov. 25	110.0	Dec. 14	113.4	Jan. 22, 1959	126.3
Jan. 27, 1954	108.6	Feb. 1, 1955	111.1	Oct. 3, 1956	115.4	Jan. 21, 1960	132.0

(D-20-20)32cdb. Lon Hunt. Drilled unused water-table well in sand and gravel, diam 6 in, depth 125 ft. Lsd about 4, 280 ft above msl. MP top of casing, 2.10 ft above lsd. Highest water level 86.2 below lsd, Apr. 2, 1941; lowest 96.6 below lsd, May 24, 1954. Records available: 1941-43, 1945-60. Jan. 27, 1956, 90.0; Sept. 27, 90.8; Sept. 5, 1957, 92.3; Apr. 10, 1958, 93.0; Feb. 13, 1959, 94.3; Jan. 18, 1960, 95.7.

(D-21-26)2baa. Randel and Hunt. Drilled unused water-table well in sand and gravel, diam 20 in, depth 110 ft, cased 0-100. Lsd about 4, 130 ft above msl. MP top of casing, 3.00 ft above lsd. Highest water level 36.6 below lsd, Aug. 26, 1947; lowest 61.7 below lsd, Oct. 15-Nov. 30, 1960. Records available: 1947-60.

Highest water level for the day, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	55.0	54.7	54.4	54.4	55.4	55.9	56.4	57.2	57.9	58.2	58.4	58.2
10	54.9	54.6	54.3	54.5	55.6	56.0	56.5	57.4	58.0	57.9	58.4	58.2
15	54.9	54.6	54.3	54.7	55.7	56.2	56.6	57.6	58.0	58.2	58.4	58.1
20	54.8	54.5	54.3	54.9	55.7	56.3	56.8	57.5	58.2	58.4	58.4	58.0
25	54.8	54.5	54.3	55.0	55.8	56.4	56.9	57.6	58.3	58.4	58.3	58.0
Eom	54.7	....	54.3	55.2	55.9	56.3	57.1	57.8	58.4	58.5	58.3	57.9
1957												
5	57.8	57.4	57.0	56.7	57.5	58.2	58.6	59.0	58.6	59.2	59.0	58.6
10	57.7	57.3	56.9	56.7	57.7	58.3	58.4	59.1	58.4	59.2	58.9	58.5
15	57.7	57.2	56.9	56.8	57.9	58.4	58.7	59.2	58.3	59.2	58.8	58.4
20	57.6	57.2	56.8	57.0	58.0	58.6	58.8	59.0	58.7	59.2	58.8	58.4
25	57.5	57.1	56.8	57.1	58.0	58.7	58.9	58.7	59.0	59.1	58.7	58.3
Eom	57.4	....	56.7	57.3	58.0	58.8	59.0	58.7	59.1	59.0	58.6	58.3
1958												
5	58.2	57.8	57.4	57.2	57.4	57.2	56.5	57.2	57.2	56.7	57.1	57.2
10	58.1	57.8	57.4	57.2	57.5	57.0	56.8	57.3	57.1	56.8	57.2	57.2
15	58.1	57.7	57.3	57.2	57.4	56.7	57.1	57.3	56.6	56.9	57.2	57.2
20	58.0	57.6	57.3	57.2	57.3	56.4	57.1	57.2	56.5	57.0	57.2	57.2
25	58.0	57.5	57.2	57.2	57.3	56.0	57.1	57.2	56.3	57.1	57.2	57.1
Eom	57.9	....	57.2	57.3	57.3	56.1	57.2	57.2	56.5	57.1	57.2	57.1
1959												
5	57.1	56.9	56.8	56.7	57.2	57.6	58.0	58.5	59.0	58.8	59.1	59.0
10	57.1	56.9	56.8	56.8	57.2	57.7	57.9	58.6	59.1	58.9	59.0	59.1
15	57.0	56.9	56.7	56.8	57.3	57.8	58.0	58.7	58.9	58.9	59.1	59.1
20	57.0	56.8	56.7	56.9	57.3	57.9	58.1	58.8	58.7	59.0	59.1	59.0
25	57.0	56.8	56.7	57.0	57.4	58.1	58.3	58.9	58.6	59.0	59.1	59.0
Eom	57.0	....	56.7	57.1	57.5	58.2	58.4	59.0	58.7	59.1	59.1	59.0
1960												
5	59.0	58.7	58.4	58.5	59.2	59.8	60.5	60.8	61.3	61.6	61.7	61.6
10	58.9	58.6	58.4	58.6	59.4	59.9	60.6	60.9	61.4	61.6	61.7	61.6
15	58.9	58.6	58.4	58.7	59.5	60.0	60.6	60.9	61.4	61.7	61.7	61.5
20	58.8	58.6	58.3	58.8	59.5	60.1	60.4	61.0	61.5	61.7	61.7	61.5
25	58.8	58.5	58.3	59.0	59.6	60.3	60.4	61.1	61.5	61.7	61.7	61.4
Eom	58.7	....	58.4	59.1	59.7	60.4	60.7	61.2	61.6	61.7	61.7	61.4

## GROUND-WATER LEVELS, 1956-60, SOUTHWESTERN STATES

(D-21-26)24baa. McNeal Cemetery. Drilled domestic water-table well in sand and gravel, diam 8 in, depth 196 ft. Lsd 4, 195.8 ft above msl. MP top of casing, 2.00 ft above lsd. Highest water level 112.0 below lsd, Jan. 31, 1946; lowest 137.9 below lsd, Jan. 19, 1960.

Records available: 1946-58, 1960. No measurement made in 1959.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11, 1956	130.0	July 17, 1956	131.4	Nov. 20, 1956	134.4	July 11, 1957	133.9
Apr. 25	135.2	Aug. 14	133.8	Dec. 18	132.6	Sept. 10	133.4
May 23	130.8	Sept. 11	135.2	Jan. 23, 1957	134.3	Jan. 8, 1958	133.4
June 19	131.0	Oct. 16	132.4	Mar. 6	132.2	Jan. 19, 1960	137.9

(D-22-26)28bab2. J. E. Brophy. Drilled irrigation water-table well in sand and gravel, diam 8 in, depth 90 ft. Lsd 4, 026.6 ft above msl. MP top of concrete foundation under pump, 1.20 ft above lsd. Highest water level 26.4 below lsd, July 25, 1946; lowest 44.4 below lsd, Jan. 20, 1959. Records available: 1946-47, 1949-51, 1953-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 25, 1956	41.1	Aug. 14, 1956	42.5	Dec. 18, 1956	42.4	Sept. 10, 1957	43.2
May 23	39.8	Sept. 11	42.6	Jan. 22, 1957	41.6	Jan. 8, 1958	41.9
June 19	41.7	Oct. 16	42.9	Mar. 5	41.2	Jan. 20, 1959	44.4
July 17	41.7	Nov. 20	42.6	July 11	42.4	Jan. 19, 1960	43.1

(D-23-22)33ddc. U. S. Government. Drilled observation water-table well in alluvial fill, diam 12 to 8 in, depth 92 ft, cased 0-92. Lsd about 4, 200 ft above msl. MP top of casing, 3.40 ft above lsd. Highest water level 11.5 below lsd, Aug. 25, 1955; lowest 17.9 below lsd, June 20, 1959. Records available: 1954-60. Recorder installed July 1954. July 1, 1954, 15.0.

## Highest water level for the day, from recorder graph, 1954

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	....	....	....	....	....	....	....	....	13.0	13.5	13.6	13.5
10	....	....	....	....	....	....	....	....	13.3	13.6	13.6	13.5
15	....	....	....	....	....	....	14.7	....	13.3	13.6	13.6	13.5
20	....	....	....	....	....	....	14.3	12.7	13.4	13.6	13.5	13.5
25	....	....	....	....	....	....	13.9	12.7	13.4	13.6	13.5	13.5
Eom	....	....	....	....	....	....	13.8	13.0	13.5	13.6	13.5	13.5

## 1955

5	13.5	13.5	13.6	....	....	....	....	....	12.7	13.2	13.3	13.3
10	13.5	13.5	13.5	....	....	....	....	....	12.9	13.3	13.3	13.3
15	13.5	13.6	....	....	....	....	....	....	13.0	13.3	13.3	13.3
20	13.5	13.6	....	....	....	....	....	....	13.2	13.2	13.3	13.3
25	13.5	13.5	....	....	16.6	17.6	13.9	11.5	13.3	13.2	13.3	13.3
Eom	13.5	....	15.5	16.4	....	....	....	12.4	13.3	13.3	13.3	13.3

## 1956

5	13.3	13.3	13.4	13.4	13.7	13.9	13.9	13.9	13.8	14.2	14.0	14.0
10	13.3	13.4	13.4	13.4	13.7	13.9	13.9	14.2	13.9	14.6	14.3	14.0
15	13.3	13.3	13.4	13.5	13.7	14.0	13.7	14.0	13.8	14.9	14.5	14.0
20	13.3	13.4	13.5	13.5	13.8	14.1	13.6	13.8	13.8	14.6	14.2	13.9
25	13.3	13.4	13.5	13.6	13.8	14.1	13.5	14.1	14.1	14.4	14.0	13.9
Eom	13.3	....	13.5	13.6	13.8	14.0	13.5	13.7	14.2	14.0	14.0	13.9

## 1957

5	13.9	14.1	14.2	14.1	14.6	14.2	14.3	13.6	13.4	13.8	13.8	13.8
10	13.9	14.2	14.1	14.0	14.4	14.0	14.0	13.6	13.5	13.8	13.8	13.8
15	13.8	14.5	14.3	14.2	14.7	14.7	14.1	13.5	13.6	13.8	13.8	13.8
20	13.9	14.1	14.2	14.3	14.5	14.7	14.0	13.0	13.7	13.8	13.8	13.7
25	13.8	14.3	14.0	14.4	14.3	14.7	13.8	13.2	13.8	13.8	13.8	13.7
Eom	13.9	....	14.0	14.3	14.2	14.4	13.9	13.3	13.8	13.7	13.8	13.8

## 1958

5	13.8	13.8	13.7	14.0	14.3	14.8	14.0	12.6	12.8	12.8	13.3	13.4
10	13.8	13.8	13.7	14.1	14.0	14.8	15.6	12.9	12.8	12.9	13.4	13.4
15	13.7	13.8	13.7	14.1	15.2	14.6	14.6	12.7	12.7	13.0	13.5	13.4
20	13.7	13.7	13.8	14.2	15.4	14.4	14.1	12.5	13.0	13.2	13.3	13.4
25	13.7	13.7	13.9	14.2	14.5	15.2	14.0	12.4	12.8	13.2	13.3	13.3
Eom	13.8	....	14.2	14.3	14.7	14.5	13.8	12.7	12.8	13.3	13.3	13.2

## 1959

5	13.2	13.4	13.8	13.8	14.1	14.5	14.2	13.1	13.2	13.6	13.5	13.4
10	13.3	13.3	13.6	14.0	14.0	14.9	14.2	13.2	13.6	13.9	13.4	13.4
15	13.3	13.3	13.7	13.6	14.4	15.3	14.6	12.8	13.8	13.9	13.4	13.4
20	13.3	13.3	14.0	13.6	14.2	17.9	13.9	12.9	13.7	14.0	13.4	13.4
25	13.3	13.3	14.0	14.0	14.1	17.0	14.2	13.2	13.6	13.8	13.4	13.4
Eom	13.4	....	13.8	14.2	14.4	14.2	13.0	13.0	13.5	13.6	13.4	13.4

## 1960

5	13.3	13.2	13.4	13.3	13.3	14.2	14.1	13.9	14.5	14.0	14.0	14.0
10	13.3	13.2	13.7	13.3	13.4	14.2	14.2	13.9	13.8	14.1	14.2	13.9
15	13.1	13.2	13.7	13.3	13.6	14.2	14.4	13.5	13.8	14.0	14.3	14.0
20	13.2	13.2	13.5	13.3	14.0	14.2	14.5	13.9	14.0	13.9	14.1	14.0
25	13.2	13.2	13.3	13.2	14.1	14.0	14.0	14.2	14.1	13.9	14.0	13.9
Eom	13.2	....	13.4	13.2	14.2	13.9	13.9	14.0	14.1	14.0	14.0	13.9

(D-24-27)5bdb. Fred Price. Dug stock water-table well in sand and gravel, diam 8 ft, depth 82 ft, lined with concrete. Lsd about 3,996 ft above msl. MP top of 2- x 12-in board, 1.00 ft above lsd. Highest water level 54.3 below lsd, May 26, 1942; lowest 65.2 below lsd, Jan. 19, 1960. Records available: 1942, 1944-57, 1959-60. No measurement made in 1958. Jan. 9, 1956, 63.0; Sept. 4, 1957, 64.8; Dec. 10, 64.5; Jan. 19, 1959, 64.6; Jan. 19, 1960, 65.2.

#### Coconino County

(A-22-6)26aaa. City of Flagstaff. Drilled unused water-table well in Coconino Sandstone of Permian age, diam 16 in, reported depth 1,021 ft, cased 0-1,021. Lsd about 7,335 ft above msl. MP top of casing, at lsd. Highest water level 129.7 below lsd, Sept. 28, 1945; lowest 132.1 below lsd, Dec. 19, 1957. Records available: 1944-57, 1960. No measurement made in 1958 or 1959. June 19, 1956, 131.6; Oct. 25, 131.8; May 30, 1957, 132.0; Dec. 19, 132.1; Apr. 13, 1960, 131.9.

#### Gila County

(A-1-15)9aad. Kenneth Hoopes. Drilled industrial water-table well in sand and gravel, diam 12 in, depth 180 ft. Lsd 3,237.5 ft above msl. MP hole in casing, 2.50 ft above lsd. Highest water level 39.2 below lsd, Apr. 9, 1952; lowest 95.9 below lsd, Feb. 10, 1959. Records available: 1945-60. Sept. 18, 1956, 93.4; Sept. 11, 1957, 80.9; Mar. 25, 1958, 88.5; Feb. 10, 1959, 95.9; Feb. 9, 1960, 63.0.

(D-1-15)13bad. Schniffen. Drilled unused water-table well in sand and gravel, diam 6 in, depth 105 ft. Lsd about 3,800 ft above msl. MP top of casing, 0.20 ft above lsd. Highest water level 3.5 below lsd, May 5, 1949; lowest 38.9 below lsd, Apr. 11, 1951. Records available: 1946-55, 1957, 1959-60. No measurement made in 1956 or 1958. Sept. 11, 1957, 25.2; Feb. 10, 1959, 33.5; Feb. 9, 1960, 7.1.

(D-1-17)10bd. U. S. Indian Service. Drilled unused water-table well in alluvial fill, diam 8 in, reported depth 125 ft. Lsd about 2,995 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 18.6 below lsd, Nov. 7, 1951; lowest 19.4 below lsd, Mar. 25, 1958, Feb. 10, 1959, Feb. 9, 1960. Records available: 1951-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 7, 1951	18.6	Jan. 27, 1953	18.8	Aug. 18, 1954	19.0	Sept. 11, 1957	19.2
Jan. 15, 1952	18.7	Apr. 15	18.9	Dec. 7	19.1	Mar. 25, 1958	19.4
Apr. 8	c19.0	July 6	c19.0	Sept. 27, 1955	19.2	Feb. 10, 1959	19.4
June 26	18.8	Oct. 29	18.9	Sept. 19, 1956	19.1	Feb. 9, 1960	19.4
Oct. 28	18.8	May 12, 1954	19.0				

c Nearby well being pumped.

(D-3-15)20ddb. Marvin Dodge. Drilled irrigation water-table well in Gila Conglomerate of Pliocene and Pleistocene age, diam 20 in, reported depth 300 ft, cased 0-193. Lsd about 2,730 ft above msl. MP slot in casing, at lsd (since Sept. 21, 1956). Highest water level 81.6 below lsd, Feb. 25, 1960; lowest 102.2 below lsd, Sept. 11, 1957. Records available: 1952-60.

May 22, 1952	91.9	Mar. 1, 1954	98.5	Sept. 28, 1955	97.1	Mar. 26, 1958	95.7
Apr. 3, 1953	94.0	May 11	97.6	Sept. 21, 1956	101.0	Feb. 6, 1959	99.8
July 2	97.7	Dec. 8	97.5	Sept. 11, 1957	102.2	Feb. 25, 1960	81.6
Dec. 8	a98.7						

a Well being pumped.

#### Graham County

(D-4-22)13dba. Aubrey Rabb. Drilled irrigation water-table well in sand and gravel, diam 16 in, reported depth 100 ft. Lsd about 2,640 ft above msl. MP hole in east side of pump-base, 1.80 ft above lsd. Highest water level 13.2 below lsd, Jan. 26, 1960; lowest 29.0 below lsd, Aug. 31, 1953. Records available: 1953-60.

Jan. 31, 1956	17.7	July 2, 1957	22.5	July 29, 1958	19.3	Nov. 24, 1959	16.5
Feb. 27	17.5	30	23.0	Aug. 26	16.7	Dec. 22	16.1
May 1	18.4	Aug. 27	23.1	Sept. 23	16.9	Jan. 26, 1960	13.2
Sept. 4	23.0	Oct. 1	18.2	Oct. 28	15.4	Feb. 23	13.3
25	23.8	29	17.9	Nov. 25	15.2	Apr. 26	13.9
Oct. 30	21.3	Nov. 26	17.7	Dec. 23	15.2	June 21	17.5
Nov. 27	21.1	Dec. 24	17.5	Jan. 27, 1959	15.0	July 26	17.2
Jan. 2, 1957	20.7	Jan. 28, 1958	17.3	Feb. 24	15.0	Aug. 23	17.9
29	20.1	Feb. 25	17.1	Apr. 28	16.7	Sept. 20	17.9
Feb. 26	19.6	Apr. 1	13.7	June 23	16.8	Oct. 25	17.7
Apr. 30	20.2	29	14.0	Aug. 22	17.6	Nov. 22	17.0
May 28	21.4	May 27	14.5	Oct. 27	17.2	Dec. 20	16.5

(D-4-22)35ddd. Pat Hinton. Drilled stock water-table well in sand and gravel, diam 6 in, depth 75 ft, cased 0-75. Lsd 2, 859.5 ft above msl. MP top of casing, 2.00 ft above lsd. Highest water level 17.1 below lsd, Feb. 11, 1943; lowest 39.4 below lsd, Mar. 29, 1940. Records available: 1939-44, 1946-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17, 1956	b39.4	July 2, 1957	b37.3	Sept. 23, 1958	b37.1	Nov. 24, 1959	36.4
May 1	b39.4	30	35.8	Oct. 28	36.3	Dec. 22	34.9
29	b34.4	Aug. 27	b37.3	Nov. 25	35.6	Jan. 26, 1960	33.9
July 3	b35.2	Oct. 1	b39.7	Dec. 23	35.0	Feb. 23	33.3
31	b35.6	29	37.2	Jan. 27, 1959	34.4	Mar. 29	35.4
Sept. 4	b37.6	Nov. 26	36.1	Feb. 24	b35.1	Apr. 26	32.2
25	b35.0	Dec. 24	b39.5	Mar. 24	33.6	May 24	b36.6
Oct. 30	b38.8	Jan. 28, 1958	b39.6	Apr. 28	33.6	June 21	b38.2
Nov. 27	b35.7	Feb. 25	b36.2	May 26	b36.9	July 26	33.1
Jan. 2, 1957	b35.0	Apr. 1	b35.3	June 23	b42.1	Aug. 23	b40.5
29	b39.5	29	b34.3	July 28	35.5	Sept. 20	34.7
Feb. 26	b34.9	May 27	34.8	Aug. 25	35.9	Oct. 25	33.5
Mar. 26	b37.2	July 1	b35.9	Sept. 22	35.8	Nov. 22	32.8
Apr. 30	b39.8	Aug. 5	b36.9	Oct. 27	b43.8	Dec. 20	b34.6
May 28	b39.6	26	b37.0				

b Well pumped recently.

(D-4-23)29adc. T. D. Motes. Formerly Silas Jarvis. Drilled irrigation water-table well in sand and gravel, diam 16 in, depth 83 ft, cased to 83, perforated 53-73. Lsd 2, 705.7 ft above msl. MP hole in pumpbase, 0.90 ft above lsd. Highest water level 46.1 below lsd, Mar. 18, 1941; lowest 63.2 below lsd, Feb. 15, 1948. Records available: 1940-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31, 1956	53.0	July 30, 1957	57.7	Aug. 26, 1958	50.0	Nov. 24, 1959	50.5
Feb. 27	52.6	Aug. 27	56.5	Sept. 23	50.1	Dec. 22	49.8
May 1	57.6	Oct. 1	55.4	Oct. 28	49.3	Jan. 26, 1960	49.2
July 3	58.0	29	54.2	Nov. 25	49.0	Feb. 23	48.6
31	57.4	Nov. 25	53.2	Dec. 23	48.9	Mar. 29	48.2
Sept. 4	59.1	Dec. 24	52.2	Jan. 27, 1959	48.7	Apr. 26	47.5
25	59.9	Jan. 28, 1958	51.5	Feb. 24	48.5	May 24	47.2
Oct. 30	57.3	Feb. 25	51.1	Mar. 24	48.4	June 21	48.1
Nov. 27	56.0	Apr. 1	50.6	June 23	51.9	July 26	50.7
Jan. 2, 1957	55.2	29	50.4	July 28	52.7	Sept. 20	50.9
29	54.5	May 27	49.7	Aug. 25	51.8	Oct. 25	49.8
Feb. 26	54.8	July 1	50.4	Sept. 22	51.7	Nov. 22	49.4
May 28	57.8	29	50.2	Oct. 27	51.0	Dec. 20	49.1
July 2	58.1						

(D-6-24)5acc. M. J. Ferguson. Formerly Eldon Palmer. Drilled irrigation water-table well in sand and gravel, diam 16 in, depth 64 ft, cased 0-64. Lsd 2, 779.6 ft above msl. MP hole in casing, 1.50 ft above lsd. Highest water level 38.9 below lsd, May 29, 1941; lowest 57.7 below lsd, June 28, 1955. Records available: 1940-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31, 1956	49.8	Apr. 30, 1957	56.7	July 29, 1958	45.9	Oct. 27, 1959	47.8
Feb. 27	49.4	May 28	55.4	Aug. 26	47.3	Nov. 24	47.6
Mar. 27	50.0	July 2	56.1	Sept. 23	46.3	Dec. 22	46.9
May 1	51.3	30	56.2	Oct. 28	45.5	Jan. 26, 1960	45.7
29	52.5	Aug. 27	55.2	Nov. 25	44.9	Feb. 23	44.0
July 3	53.3	Oct. 1	53.2	Dec. 23	44.4	Mar. 29	42.7
31	53.9	29	52.4	Jan. 27, 1959	43.7	Apr. 26	42.1
Sept. 4	54.5	Nov. 26	51.8	Feb. 24	43.2	May 24	42.1
25	53.9	Dec. 24	51.2	Mar. 24	43.5	June 21	42.5
Oct. 30	54.3	Jan. 28, 1958	50.6	April 28	45.2	July 26	44.4
Nov. 27	54.1	Feb. 25	50.2	May 26	46.9	Aug. 23	47.2
Jan. 2, 1957	54.4	Apr. 1	49.4	June 23	47.6	Sept. 20	47.8
29	54.2	29	47.6	July 28	48.6	Oct. 25	48.1
Feb. 26	54.5	May 27	45.8	Aug. 25	48.6	Nov. 22	47.9
Mar. 26	55.2	July 1	45.6	Sept. 22	47.8	Dec. 20	47.8

(D-6-25)20aaa. Vance Marshall. Drilled irrigation water-table well in sand and gravel, diam 16 in, depth 46 ft, cased 0-46. Lsd 2, 821.6 ft above msl. MP top of casing, 0.30 ft above lsd (since Apr. 26, 1955). Highest water level 10.8 below lsd, May 26, 1941; lowest 29.6 below lsd, Oct. 30, 1956. Records available: 1939-46, 1948-50, 1952-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31, 1956	20.0	Jan. 30, 1957	26.0	Nov. 26, 1957	20.5	July 1, 1958	16.5
Feb. 27	19.2	Feb. 26	24.6	Dec. 24	20.0	29	17.6
May 1	22.4	May 28	24.7	Jan. 28, 1958	18.9	Aug. 26	17.7
July 3	26.0	July 30	28.1	Feb. 25	17.9	Sept. 23	16.2
Oct. 30	29.6	Aug. 27	22.7	April 1	15.1	Oct. 28	15.3
Nov. 27	28.1	Oct. 1	21.6	29	14.2	Nov. 25	15.3
Jan. 2, 1957	27.5	29	21.1	May 27	15.2	Dec. 23	15.6

(D-6-25)20aaa--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27, 1959	15.1	July 28, 1959	c18.4	Jan. 26, 1960	13.9	July 26, 1960	16.5
Feb. 24	15.0	Aug. 25	16.7	Feb. 23	13.6	Aug. 23	18.2
Mar. 24	c18.2	Sept. 22	16.6	Mar. 29	12.5	Sept. 20	18.1
Apr. 28	c18.1	Oct. 27	17.2	Apr. 26	13.5	Oct. 25	16.4
May 26	c18.7	Nov. 24	15.6	May 24	14.6	Nov. 22	16.0
June 23	17.5	Dec. 22	15.3	June 21	16.6	Dec. 20	15.9

c Nearby well being pumped.

(D-6-28)31aab. J. W. Irvin. Drilled unused water-table well in Gila Conglomerate, diam 16 in, depth 540 ft. Lsd about 3,150 ft above msl. MP top of casing, 0.80 ft above lsd. Highest water level 23.6 below lsd, June 2, 1952; lowest 43.1 below lsd, Jan. 7, 1957. Records available: 1951-60.

Jan. 29, 1951	26.4	Oct. 5, 1953	36.5	Nov. 29, 1954	36.8	Jan. 9, 1956	27.5
Feb. 26	27.1	12	36.7	Dec. 13	36.7	16	28.0
Mar. 26	28.2	19	36.8	20	36.2	23	28.5
Apr. 30	28.9	26	37.0	27	36.1	30	28.4
May 28	29.7	Nov. 2	37.0	Jan. 3, 1955	36.2	Feb. 6	29.1
June 25	30.4	9	37.0	10	36.0	13	29.3
July 30	31.3	16	37.0	17	35.9	20	29.9
Aug. 27	31.8	23	37.0	24	35.8	27	30.0
Sept. 1	32.3	30	36.9	31	35.6	Mar. 5	30.4
Oct. 29	32.5	Dec. 7	36.8	Feb. 7	35.3	12	31.2
Nov. 26	32.1	14	36.6	14	34.8	19	31.3
Dec. 24	31.8	21	36.4	21	34.1	26	30.7
Jan. 28, 1952	29.9	28	36.3	28	34.6	Apr. 2	31.4
Mar. 3	28.0	Jan. 4, 1954	36.1	Mar. 7	34.7	9	31.9
31	25.1	11	35.9	14	34.5	16	32.0
Apr. 28	23.8	18	35.7	21	34.6	23	32.0
June 2	23.6	25	35.6	28	34.6	30	31.9
30	25.3	Feb. 1	35.3	Apr. 4	34.8	May 7	32.2
July 28	26.8	8	35.2	11	35.1	14	32.5
Sept. 1	28.6	15	34.9	18	35.4	21	32.5
29	30.4	22	34.6	25	35.4	28	32.5
Oct. 27	31.2	Mar. 1	34.4	May 2	35.2	June 4	32.9
Dec. 1	30.9	8	34.4	9	35.2	11	33.2
29	30.7	15	34.4	16	36.1	18	33.5
Jan. 12, 1953	30.6	22	34.4	23	36.6	July 2	33.5
19	30.5	29	33.7	30	36.9	25	34.0
Feb. 2	30.7	Apr. 5	33.4	June 6	37.1	9	34.7
9	30.3	12	33.5	13	37.5	16	35.3
16	30.2	19	33.8	20	37.8	23	36.2
23	30.1	May 3	34.2	27	38.2	30	37.1
Mar. 2	30.3	10	34.3	July 4	38.9	Aug. 6	37.6
9	30.5	24	34.1	11	39.0	13	38.3
16	30.4	31	34.1	18	39.2	20	38.8
23	30.4	June 7	34.4	25	38.4	27	39.2
30	30.4	14	34.6	Aug. 1	37.0	Sept. 3	39.6
Apr. 6	30.4	21	34.8	8	37.0	10	40.1
13	30.6	28	35.0	15	36.3	17	40.5
20	31.1	July 5	35.1	22	35.9	24	40.9
May 4	31.6	19	35.8	29	35.5	Oct. 1	41.2
11	31.9	26	35.8	Sept. 5	35.4	8	41.5
June 1	32.4	Aug. 2	36.2	12	36.2	15	41.8
8	32.7	9	35.9	19	36.6	22	42.0
15	32.9	16	35.5	26	37.0	29	42.2
22	33.2	23	35.8	Oct. 3	37.2	Nov. 5	42.4
29	33.4	30	35.6	10	36.3	12	42.5
July 13	33.8	Sept. 6	35.7	17	36.5	19	42.7
20	34.0	13	36.1	24	36.8	26	42.8
27	34.3	20	36.4	31	37.1	Dec. 3	42.9
Aug. 3	34.3	27	36.5	Nov. 7	37.3	10	43.0
10	34.6	Oct. 4	36.7	14	37.5	17	43.0
17	34.9	11	36.7	21	37.5	24	43.0
24	35.0	18	36.8	28	36.7	31	43.1
31	35.2	25	37.0	Dec. 5	35.6	Jan. 7, 1957	43.1
Sept. 7	35.5	Nov. 1	37.0	12	26.6	14	42.9
14	35.8	8	37.1	19	24.8	21	42.6
21	36.2	15	37.0	26	25.2	28	42.5
28	36.4	22	36.8	Jan. 3, 1956	26.5	Feb. 4	42.4

(D-6-28)31aab--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 11, 1957	42.3	July 15, 1957	42.1	Dec. 2, 1957	36.2	May 25, 1959	30.6
18	42.0	22	42.3	9	36.5	June 22	31.4
25	41.8	29	42.1	16	36.4	July 27	33.3
Mar. 4	41.4	Aug. 5	41.0	23	35.8	Aug. 24	34.6
11	41.0	12	38.8	Jan. 27, 1958	35.8	Sept. 24	33.7
18	40.8	19	37.0	Feb. 24	35.2	Oct. 26	33.9
25	40.8	26	35.3	Mar. 31	29.7	Nov. 23	33.0
Apr. 1	40.7	Sept. 2	34.0	Apr. 28	28.2	Dec. 23	32.6
8	40.6	9	33.8	May 26	28.2	Jan. 25, 1960	30.2
15	39.8	16	34.2	June 30	29.1	Feb. 22	30.0
22	38.3	23	33.8	July 28	30.3	Mar. 28	28.1
29	38.9	30	35.0	Aug. 25	32.7	Apr. 25	27.3
May 6	39.1	Oct. 7	35.3	Sept. 22	32.3	May 23	27.2
13	39.4	14	35.3	Oct. 27	30.9	June 20	28.6
20	39.8	21	35.4	Nov. 24	30.8	July 25	30.3
27	40.1	28	35.6	Dec. 22	30.9	Aug. 22	33.4
June 3	40.3	Nov. 4	36.0	Jan. 26, 1959	31.0	Sept. 19	35.1
10	40.5	11	36.2	Feb. 23	30.1	Oct. 23	35.9
July 1	41.5	18	36.2	Mar. 23	30.0	Nov. 21	34.8
8	41.8	25	36.2	Apr. 27	30.2	Dec. 19	34.4

(D-7-26)22bac. Lee Johns. Drilled irrigation water-table well in sand and gravel, diam 16 in, depth 90 ft, cased to 90. Lsd 2,950.3 ft above msl. MP top of casing, 0.50 ft above lsd (since Apr. 30, 1956). Highest water level 20.3 below lsd, May 25, 1942; lowest 68.2 below lsd, July 1, 1957. Records available: 1940-60.

Jan. 30, 1956	44.6	July 29, 1957	68.1	Sept. 22, 1958	42.6	Oct. 26, 1959	41.5
Feb. 27	42.8	Aug. 26	64.6	Oct. 27	38.3	Nov. 23	38.6
Apr. 30	56.5	Sept. 30	59.3	Nov. 24	36.5	Dec. 23	36.8
July 30	65.7	Oct. 28	56.3	Dec. 22	35.3	Jan. 25, 1960	35.1
Sept. 3	64.2	Nov. 25	52.5	Jan. 26, 1959	34.0	Feb. 22	33.8
24	64.5	Dec. 23	49.5	Feb. 23	33.4	Mar. 28	32.5
Oct. 29	62.2	Jan. 27, 1958	46.6	Mar. 23	36.8	April 25	29.7
Nov. 26	58.9	Feb. 24	44.8	April 27	43.4	May 23	32.5
Dec. 31	55.7	Mar. 29	42.3	May 25	44.8	Sept. 19	45.3
Jan. 28, 1957	53.1	Apr. 28	39.9	June 22	48.2	Oct. 23	39.9
Feb. 25	51.7	May 26	38.0	July 27	50.4	Nov. 21	37.6
Mar. 25	61.6	June 30	43.2	Aug. 24	44.9	Dec. 19	37.2
July 1	68.2						

(D-8-21)18dad. J. D. Williams. Drilled irrigation water-table well in alluvial fill, diam 12 in, reported depth 140 ft. Lsd about 3,880 ft above msl. MP hole in north side of pumpbase, 1.50 ft above lsd. Highest water level 32.3 below lsd, Feb. 3, 1960; lowest 43.1 below lsd, Dec. 18, 1957. Records available: 1955-57, 1959-60. No measurement made in 1958.

Feb. 1, 1955	36.2	May 23, 1956	39.4	Nov. 14, 1956	40.4	Dec. 18, 1957	43.1
Mar. 23	36.6	July 11	40.0	Dec. 19	40.2	Feb. 12, 1959	38.5
Dec. 18	38.3	Sept. 10	40.0	Jan. 25, 1957	38.1	Feb. 3, 1960	32.3

(D-8-25)12acc. Andrew Angle. Drilled unused artesian well in alluvial fill, diam 4 in. Lsd about 3,215 ft above msl. MP top of casing, 4.00 ft above lsd. Highest water level 3.8 below lsd, Dec. 28, 1946; lowest 26.2 below lsd, June 30, 1956, Sept. 19, 1960. Records available: 1946-60.

Nov. 18, 1946	3.9	Aug. 3, 1953	22.7	Jan. 1, 1957	18.3	June 30, 1958	18.7
Dec. 28	3.8	Nov. 2	20.0	29	17.4	Aug. 4	18.9
Mar. 10, 1947	4.5	Feb. 9, 1954	20.1	Feb. 28	17.2	26	18.5
July 29	10.2	Apr. 19	18.3	Mar. 25	17.1	Sept. 23	19.2
Feb. 17, 1948	10.0	July 12	22.1	Apr. 29	17.9	Oct. 27	18.5
Apr. 30	9.7	Oct. 18	21.3	May 21	17.3	Nov. 24	18.6
Feb. 1, 1949	14.4	Jan. 24, 1955	18.3	July 2	18.2	Dec. 22	18.4
July 15	15.1	Apr. 19	20.5	30	18.4	Jan. 26, 1959	18.7
Oct. 28	15.6	July 12	26.0	Aug. 27	18.1	Feb. 23	18.4
Mar. 13, 1950	15.6	Oct. 17	22.0	Sept. 30	17.8	Mar. 23	19.4
July 11	16.3	Jan. 23, 1956	19.5	Oct. 28	17.5	Apr. 27	19.3
Mar. 5, 1951	16.5	May 28	24.2	Nov. 26	17.3	May 25	19.8
May 21	19.0	June 30	26.2	Dec. 23	17.6	June 22	20.6
Jan. 28, 1952	20.3	July 30	22.4	Jan. 27, 1958	17.6	July 27	21.0
May 8	17.1	Sept. 1	23.0	Feb. 24	17.5	Aug. 24	21.3
Dec. 4	18.6	22	24.1	Mar. 31	17.5	Sept. 24	21.5
Jan. 26, 1953	17.9	Oct. 30	23.1	Apr. 28	18.2	Oct. 26	22.1
June 7	20.5	Nov. 26	21.7	May 26	18.6	Nov. 23	21.6

(D-8-25)12acc--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 22, 1959	21.5	Apr. 25, 1960	22.2	July 25, 1960	24.6	Oct. 23, 1960	25.5
Jan. 25, 1960	21.8	May 23	23.0	Aug. 22	25.6	Nov. 21	25.4
Feb. 22	22.0	June 20	23.5	Sept. 19	26.2	Dec. 19	25.1
Mar. 28	22.3						

(D-8-25)12dba. Andrew Angle. Drilled irrigation water-table well in alluvial fill, diam 12 in, reported depth 400 ft, cased to 300, perforated 50-300. Lsd about 3, 235 ft above msl. MP hole in casing, 0.30 ft above lsd. Highest water level 55.6 below lsd, Mar. 13, 1950; lowest 102.2 below lsd, June 20, 1960. Records available: 1950-60.

Mar. 13, 1950	55.6	Oct. 17, 1955	82.6	July 30, 1957	94.4	Dec. 22, 1958	64.7
Mar. 5, 1951	56.7	Jan. 23, 1956	72.1	Aug. 27	91.4	Jan. 26, 1959	66.5
May 8, 1952	58.0	July 30	88.9	Sept. 30	90.7	Oct. 26	97.8
Dec. 4	63.8	Sept. 1	94.9	Oct. 28	78.3	Nov. 23	78.8
Jan. 26, 1953	59.8	22	101.9	Nov. 26	66.6	Dec. 22	71.1
Aug. 3	93.9	Oct. 30	97.7	Dec. 23	64.2	Jan. 25, 1960	66.0
Nov. 2	74.4	Nov. 26	78.0	Jan. 27, 1958	63.3	Feb. 22	64.8
Feb. 9, 1954	80.4	Jan. 2, 1957	70.9	Feb. 24	62.6	Mar. 28	63.6
Apr. 19	63.0	29	68.3	Mar. 31	60.1	May 23	95.8
July 12	94.2	Feb. 28	66.5	Apr. 28	61.7	June 20	102.2
Jan. 24, 1955	63.1	Mar. 25	67.1	May 26	61.9	Oct. 23	93.0
Apr. 19	72.9	Apr. 29	88.0	Oct. 27	78.5	Nov. 21	80.8
July 12	102.0	May 21	93.4	Nov. 24	66.5	Dec. 19	72.7

(D-8-26)33ccc. R. G. Layton. Drilled irrigation artesian well in alluvial fill, diam 16 in, reported depth 400 ft. Lsd about 3, 340 ft above msl. MP hole in pumpbase, 1.70 ft above lsd. Highest water level 17.0 below lsd, Mar. 13, 1950; lowest 50.6 below lsd, July 25, 1960. Records available: 1950-60.

Mar. 13, 1950	17.0	Oct. 17, 1955	27.8	Aug. 27, 1957	43.7	Feb. 23, 1959	28.9
July 11	18.7	Jan. 23, 1956	25.4	Sept. 30	30.3	Nov. 23	30.4
Dec. 22	17.9	June 30	44.0	Oct. 28	28.2	Dec. 22	31.7
Mar. 5, 1951	19.2	July 30	39.5	Nov. 26	27.4	Jan. 25, 1960	29.3
Jan. 28, 1952	18.9	Sept. 1	45.0	Dec. 23	26.6	Feb. 22	29.6
Dec. 1	22.0	22	31.3	Jan. 27, 1958	26.6	Apr. 25	44.2
Jan. 26, 1953	21.8	Oct. 30	28.2	Feb. 24	25.7	July 25	50.6
Aug. 3	28.0	Nov. 26	36.9	Apr. 28	43.6	Aug. 22	48.1
Apr. 19, 1954	27.5	Jan. 2, 1957	26.2	May 26	41.7	Oct. 23	34.3
Oct. 18	27.0	Mar. 25	25.7	Nov. 24	28.2	Nov. 21	33.2
Jan. 24, 1955	25.1	Apr. 29	43.6	Dec. 22	29.1	Dec. 19	34.1
Apr. 19	27.5	July 30	40.2				

(D-10-23)35acb. 76 Ranch. Drilled stock water-table well in alluvial fill, diam 6 in, reported depth 350 ft. Lsd about 4, 465 ft above msl. MP top of casing, 1.80 ft above lsd. Highest water level 233.1 below lsd, July 2, 1946; lowest 250.5 below lsd, Sept. 25, 1957. Records available: 1946, 1949-57, 1959-60. No measurement made in 1958.

July 2, 1946	233.1	Dec. 1, 1952	236.5	Dec. 17, 1955	a239.4	Jan. 25, 1957	243.8
Mar. 23, 1949	a244.5	Jan. 15, 1953	236.3	May 21, 1956	247.3	Mar. 7	245.7
Nov. 1	a240.6	May 11	236.7	July 11	b243.0	July 16	239.5
Mar. 9, 1950	234.8	July 23	a236.7	Aug. 7	b245.8	Sept. 25	250.5
Mar. 1, 1951	235.3	Jan. 25, 1954	237.8	Sept. 10	238.1	Dec. 18	236.5
Feb. 1, 1952	236.0	Nov. 16	237.5	Oct. 5	236.8	Feb. 12, 1959	a243.2
Apr. 24	236.0	Feb. 1, 1955	237.6	Nov. 14	a251.0	Feb. 2, 1960	246.2
July 18	236.0	Mar. 23	237.8	Dec. 19	239.9		

a Well being pumped.

b Well pumped recently.

Greenlee County

(D-7-31)4bcc. J. C. Merritt. Formerly Barney & Frazier. Drilled irrigation water-table well in sand and gravel, diam 20 in, depth 75 ft. Lsd 3, 544.4 ft above msl. MP hole in pumpbase, 0.60 ft above lsd. Highest water level 24.2 below lsd, May 5, 1941; lowest 41.0 below lsd, Aug. 8, 1956. Records available: 1939-43, 1945-60.

Apr. 28, 1956	36.9	July 31, 1957	38.8	Aug. 25, 1958	36.6	Nov. 23, 1959	31.3
July 2	38.2	Aug. 26	34.6	Oct. 27	31.6	Dec. 23	30.2
Aug. 8	41.0	Sept. 30	36.0	Nov. 24	30.5	Jan. 25, 1960	28.9
Sept. 1	38.5	Oct. 28	32.9	Dec. 22	29.7	Feb. 22	28.0
Nov. 3	36.6	Nov. 25	31.7	Jan. 26, 1959	29.2	June 20	33.5
24	35.0	Dec. 23	31.4	Feb. 24	27.6	July 25	38.2
Dec. 31	33.5	Jan. 27, 1958	30.6	Aug. 24	37.1	Oct. 22	34.7
Jan. 28, 1957	32.0	Feb. 24	30.2	Sept. 22	37.0	Nov. 19	32.2
Mar. 25	34.2	Apr. 28	31.7	Oct. 19	32.6	Dec. 19	33.3

(D-8-32)32cda. Delbert Meyers. Formerly Lavar Merrill. Drilled domestic water-table well in sand and gravel, diam 4 in, depth 110 ft. Lsd 3,716.0 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 22.7 below lsd, Mar. 15, 1945; lowest 38.6 below lsd, Aug. 27, 1951. Records available: 1939-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 28, 1956	32.3	July 31, 1957	33.5	Sept. 22, 1958	30.1	Nov. 23, 1959	28.3
June 4	33.2	Aug. 26	33.2	Oct. 27	29.8	Dec. 23	28.2
July 2	33.4	Sept. 30	32.6	Nov. 24	29.8	Jan. 25, 1960	28.2
Aug. 8	34.5	Oct. 28	32.4	Dec. 22	29.5	Feb. 22	28.2
Sept. 1	33.9	Nov. 25	32.3	Jan. 26, 1959	29.5	Mar. 28	28.3
22	34.1	Dec. 23	32.0	Feb. 24	29.5	Apr. 25	27.5
Nov. 3	34.1	Jan. 27, 1958	32.0	Mar. 23	29.3	May 23	27.6
24	34.1	Feb. 24	31.8	Apr. 27	29.2	June 20	27.4
Dec. 31	33.6	Mar. 31	31.2	May 25	28.8	July 25	27.3
Jan. 28, 1957	33.4	Apr. 28	30.8	June 22	28.9	Aug. 17	27.3
Feb. 25	33.4	May 26	30.6	July 21	28.9	Sept. 19	27.4
Mar. 25	33.3	June 30	30.5	Aug. 24	28.4	Oct. 22	27.6
Apr. 27	33.4	July 28	30.5	Sept. 22	28.2	Nov. 19	27.5
May 20	33.0	Aug. 25	30.4	Oct. 19	28.3	Dec. 19	27.8
July 1	33.6						

#### Maricopa County

(A-1-1)4aaa2. Isabell-Hartner Ranches. Drilled irrigation water-table well in sand and gravel, diam 20 in, depth 514 ft, cased to 365, perforated 150-355. Lsd about 1,025 ft above msl. MP below pumpbase, 0.50 ft above lsd. Highest water level 111.1 below lsd, Feb. 2, 1953; lowest 169.4 below lsd, Feb. 3, 1960. Records available: 1953-60. Jan. 10, 1956, 153.5 (nearby well being pumped); May 7, 153.1 (nearby well being pumped); Aug. 2, 156.0 (nearby well being pumped); Feb. 8, 1957, 152.0 (nearby well being pumped); Jan. 13, 1958, 166.1; Jan. 8, 1959, 152.9; Feb. 3, 1960, 169.4.

(A-1-4)11bcb. J. B. House. Drilled domestic water-table well in sand and gravel, diam 6 in, depth 201 ft. Lsd about 1,185 ft above msl. MP top of casing, 0.30 ft above lsd. Highest water level 36.8 below lsd, Feb. 21, 1946; lowest 134.0 below lsd, Aug. 2, 1956. Records available: 1946-57. No measurement made in 1958, 1959 or 1960. Jan. 18, 1956, 123.7; May 4, 129.1; Aug. 2, 134.0; Nov. 2, 129.5; Feb. 13, 1957, 128.8.

(A-1-6)23daa. Logan Stillwell. Drilled domestic water-table well in sand and gravel, diam 10 in, depth 408 ft, cased to 328. Lsd 1,375.7 ft above msl. MP top of pumpbase, 0.50 ft above lsd. Highest water level 229.2 below lsd, Mar. 19, 1946; lowest 418.6 below lsd, Feb. 19, 1960. Records available: 1946, 1948-60. Feb. 28, 1956, 359.0; Aug. 2, 376.8; Nov. 2, 382.5; Feb. 12, 1957, 376.1; Jan. 14, 1958, 391.0; Jan. 6, 1959, 402.3; Feb. 19, 1960, 418.6.

(A-3-1)35baa. Otis Cook. Drilled domestic water-table well in sand and gravel, diam 6 in, depth 217 ft. Lsd about 1,130 ft above msl. MP top of casing, 0.30 ft above lsd. Highest water level 54.5 below lsd, Mar. 20, 1946; lowest 166.6 below lsd, Feb. 2, 1960. Records available: 1946-60.

Jan. 10, 1956	126.9	Aug. 1, 1956	133.9	Feb. 6, 1957	134.4	Jan. 7, 1959	153.1
May 4	131.1	Oct. 31	134.4	Jan. 10, 1958	145.2	Feb. 2, 1960	166.6

(A-3-2)12caa. John M. Jacobs. Drilled unused water-table well in sand and gravel, diam 20 in, depth 809 ft. Lsd 1,309.7 ft above msl. MP bottom edge notch even with concrete base, 0.50 ft above lsd. Highest water level 254.0 below lsd, Feb. 21, 1949; lowest 414.9 below lsd, Jan. 6, 1959. Records available: 1948-59. No measurement made in 1960.

Jan. 6, 1956	354.6	Aug. 1, 1956	c379.6	Jan. 30, 1957	363.4	Mar. 28, 1958	377.9
May 4	c375.4	Nov. 2	c371.4	Jan. 9, 1958	380.2	Jan. 6, 1959	414.9

c Nearby well being pumped.

(A-3-4)15ddd. David and Leona Gooze. Drilled unused water-table well in sand and gravel, diam 6 in, depth 193 ft, uncased. Lsd about 1,390 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 165.8 below lsd, Mar. 24, 1946; lowest 174.7 below lsd, Aug. 2, 1956. Records available: 1946-54, 1956-59. No measurement made in 1960. Jan. 3, 1956, 174.5; May 4, 169.7; Aug. 2, 174.7; Nov. 2, 170.2; Feb. 12, 1957, 170.3; Jan. 24, 1958, 171.1; Jan. 21, 1959, 172.0.

(B-1-2)13acd. Roosevelt Irrigation District. Drilled irrigation water-table well in sand and gravel, diam 20 in, depth 155 ft, perforated 40-130. Lsd 958.9 ft above msl. MP on pump-base, at lsd. Highest water level 39.0 below lsd, Apr. 30, 1928; lowest 81.6 below lsd, Jan. 21, 1959. Records available: 1928-31, 1934-41, 1944-45, 1947-60.

Jan. 6, 1956	74.1	Aug. 3, 1956	75.8	Jan. 15, 1957	77.1	Jan. 21, 1959	81.6
May 7	75.0	Oct. 31	76.0	Jan. 15, 1958	78.0	Feb. 10, 1960	78.1

(B-1-3)34bbb. Roosevelt Irrigation District. Drilled irrigation water-table well in sand and gravel, diam 20 in, depth 200 ft, perforated 74-176. Lsd 916.7 ft above msl. MP top of casing, at lsd. Highest water level 54.2 below lsd, June 1, 1944; lowest 77.1 below lsd, Feb. 10, 1960. Records available: 1928-58, 1960. No measurement made in 1959. Jan. 10, 1956, 68.8; May 7, 71.5; Aug. 3, 76.1; Oct. 31, 70.3; Jan. 16, 1957, 70.7; Feb. 11, 1958, 72.3; Feb. 10, 1960, 77.1.

(B-2-2)4dob. Maricopa County Municipal Water Conservation District No. 1. Drilled unused water-table well in sand and gravel, diam 20 in, depth 500 ft, perforated 204-484. Lsd about 1,205 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 183.7 below lsd, May 17, 1940; lowest 291.4 below lsd, Feb. 9, 1960. Records available: 1940-42, 1946-1960.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 6, 1956	264.1	Aug. 2, 1956	269.0	Jan. 25, 1957	266.2	Jan. 20, 1959	284.7
May 4	266.1	Oct. 31	271.2	Jan. 21, 1958	276.8	Feb. 9, 1960	291.4

(B-3-1)8abb. R. I. C. Manning. Drilled irrigation water-table well in sand and gravel, diam 20 in, reported depth 800 ft, perforated 200-800. Lsd 1,217.4 ft above msl. MP on pump-base, at lsd. Highest water level 246.1 below lsd, Jan. 29, 1952; lowest 310.4 below lsd, Jan. 23, 1958. Records available: 1951-58. No measurement made in 1959 or 1960. Feb. 14, 1956, 267.8; Jan. 23, 1957, 303.5; Jan. 23, 1958, 310.4.

(B-4-1)8daa. Maricopa County Municipal Water Conservation District No. 1. Drilled unused water-table well in sand and gravel, diam 20 in, depth 500 ft, perforated 182-484. Lsd about 1,335 ft above msl. MP top of cover, 4.00 ft above lsd. Highest water level 180.0 below lsd, Nov. 28, 1938; lowest 287.2 below lsd, Feb. 5, 1960. Records available: 1938, 1940-42, 1944, 1946-60. Feb. 21, 1956, 255.5; May 4, 250.2; Oct. 31, 253.3; Jan. 23, 1957, 262.4; Jan. 23, 1958, 266.2; Jan. 16, 1959, 276.5; Feb. 5, 1960, 287.2.

(C-1-5)1aab. Charles Yokum. Drilled stock water-table well in sand and gravel, diam 6 in, depth 185 ft. Lsd 918.8 ft above msl. MP top of casing, at lsd. Highest water level 62.8 below lsd, Oct. 25, 1946; lowest 99.2 below lsd, Aug. 29, 1960. Records available: 1946-60.							
Jan. 27, 1956	79.4	Feb. 25, 1957	78.6	June 27, 1958	88.2	Sept. 30, 1959	91.9
Feb. 23	79.2	Mar. 25	86.1	Aug. 5	89.0	Nov. 2	89.9
Mar. 26	82.7	Apr. 26	87.5	28	92.3	24	88.7
Apr. 24	83.6	June 3	87.9	Sept. 26	91.8	Jan. 5, 1960	86.5
May 7	84.4	26	88.0	Oct. 24	85.8	Feb. 12	88.2
25	83.7	July 24	89.1	Nov. 26	85.3	Mar. 30	90.0
June 25	84.1	Aug. 27	84.8	Dec. 31	85.2	May 9	91.2
July 25	85.4	Sept. 26	84.0	Feb. 3, 1959	84.7	June 10	93.7
Aug. 27	84.2	Oct. 28	83.1	Mar. 25	90.8	29	98.6
Sept. 25	83.6	Nov. 27	83.1	May 7	93.4	July 28	98.9
Oct. 25	81.2	Jan. 27, 1958	81.7	26	90.9	Aug. 29	99.2
31	81.2	Feb. 25	83.0	July 2	93.9	Sept. 27	98.6
Nov. 25	80.0	Mar. 25	83.5	29	94.2	Nov. 28	95.2
Dec. 26	79.7	Apr. 24	86.1	Aug. 27	92.0	Dec. 30	93.2
Jan. 18, 1957	78.2	May 28	87.0				

(C-1-7)15bbb. Lee C. Underdown. Drilled unused water-table well in sand and gravel, diam 20 in, depth 650 ft, perforated 164-254. Lsd 948.9 ft above msl. MP top of casing, 0.30 ft above lsd. Highest water level 178.2 below lsd, Mar. 4, 1949; lowest 193.8 below lsd, Apr. 21, 1960. Records available: 1949-60.

Mar. 15, 1956	186.7	Aug. 3, 1956	187.3	Jan. 23, 1957	188.0	Feb. 5, 1959	191.6
May 7	186.8	Dec. 3	189.8	Jan. 31, 1958	189.9	Apr. 21, 1960	193.8

(D-2-5)15bbb. Jack Cornett. Formerly L. S. Breckler. Drilled domestic water-table well in sand and gravel, diam 6 in, depth 400 ft (deepened from 200 ft in 1956). Lsd 1,214.0 ft above msl. MP top of casing, 0.80 ft above lsd. Highest water level 40.2 below lsd, Mar. 23, 1945; lowest 144.4 below lsd, Jan. 15, 1959. Records available: 1945-60. Jan. 17, 1956, 107.1; May 3, 110.5; Nov. 2, 111.3; Feb. 14, 1957, 143.3 (nearby well pumped recently); Jan. 16, 1958, 134.3; Jan. 15, 1959, 144.4; Jan. 28, 1960, 131.2.

(D-2-7)12ddd. L. M. Mecham. Drilled irrigation water-table well in sand and gravel, diam 20 in, depth 600 ft, perforated 250-585. Lsd 1,456.6 ft above msl. MP top of concrete base, 0.30 ft above lsd. Highest water level 177.0 below lsd, Feb. 28, 1948; lowest 296.2 below lsd, Feb. 18, 1960. Records available: 1948-60. Mar. 7, 1956, 285.8; Feb. 6, 1957, 275.9; Jan. 10, 1958, 284.8; Jan. 9, 1959, 283.5; Feb. 18, 1960, 296.2.

Mohave County

(B-15-13)2ab. Formerly (B-16-13)34dd. Dr. A. E. Carter. Dug stock and domestic water-table well in sand and gravel, diam 4 ft, depth 20 ft, cased to 20. Lsd about 1,855 ft above msl. MP top of manhole cover, 1.00 ft above lsd. Highest water level 11.4 below lsd, Nov. 8, 1955; lowest 18.5 below lsd, Aug. 3, 1951. Records available: 1945-60. June 18, 1956, 14.4; Oct. 23, 16.2; May 31, 1957, 15.2; Feb. 17, 1958, 16.3; Jan. 28, 1959, 16.5; Mar. 8, 1960, 15.9.

(B-21-17)24cd. E. A. Kier. Drilled domestic water-table well in sand and gravel, diam 6 in, depth 120 ft. Lsd about 5,500 ft above msl. MP top of 6- x 6-in timber, 1.00 ft above lsd. Highest water level 101.5 below lsd, Aug. 14, 1944; lowest 114.7 below lsd, Mar. 9, 1960. Records available: 1944-60. June 18, 1956, 110.4; Oct. 24, 111.3; May 31, 1957, 111.3; Feb. 18, 1958, 111.7; Jan. 29, 1959, 112.6; Mar. 9, 1960, 114.7.

Navajo County

(A-17-21)7bb. Arizona State Highway Department. Drilled unused water-table well in Coconino Sandstone, diam 10 in, depth 110 ft. Lsd 5,110.5 ft above msl. MP top west side of casing, 0.30 ft above lsd. Highest water level 39.5 below lsd, June 3, 1948; lowest 44.1 below lsd, July 2, 1952. Records available: 1944-58. Measurement discontinued. May 3, 1956, 40.41; Oct. 22, 40.41; May 17, 1957, 40.6; Oct. 18, 40.6; Apr. 17, 1958, 40.3.

Pima County

(D-11-10)22add. Tom Greenfield. Drilled domestic and irrigation water-table well in sand and gravel, diam 20 in, reported depth 600 ft, cased to 600, perforated 145-582. Lsd 1,914.6 ft above msl. MP north side of pumpbase, 0.90 ft below lsd. Highest water level 140.7 below lsd, Feb. 28, 1940; lowest 214.9 below lsd, Dec. 30, 1957. Records available: 1940, 1942, 1945-48, 1950-57. No measurement made in 1958, 1959 or 1960. Jan. 5, 1956, 198.5; Jan. 29, 1957, 204.2; Dec. 30, 214.9.

(D-12-12)16bad. Cortaro Water Users Association. Drilled unused water-table well in sand and gravel, diam 24 to 18 in, reported depth 300 ft, cased to 292, perforated 75-285. Lsd about 2,085 ft above msl. MP top of casing, at lsd. Highest water level 74.7 below lsd, Feb. 20, 1940; lowest 123.3 below lsd, Aug. 25, 1948. Records available: 1939-57, 1959-60. No measurement made in 1958.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 4, 1956	106.8	Aug. 7, 1956	114.5	July 26, 1957	113.0	Jan. 30, 1959	99.8
Apr. 10	103.9	Jan. 29, 1957	105.0	Dec. 27	105.7	Jan. 6, 1960	102.4

(D-13-11)31ccc. Jones-Avra Farms. Drilled irrigation water-table well in alluvial fill, diam 20 in, reported depth 900 ft, cased to 736. Lsd 2,210 ft above msl. MP hole in pumpbase, 2.50 ft above lsd (since Aug. 6, 1953). Highest water level 276.2 below lsd, Mar. 6, 1953; lowest 327.6 below lsd, Jan. 7, 1960. Records available: 1953-57, 1959-60. No measurement made in 1958.

Mar. 6, 1953	276.2	Feb. 11, 1954	296.0	Nov. 11, 1955	321.1	Dec. 30, 1957	321.2
Aug. 6	293.6	May 6	305.4	Jan. 6, 1956	304.7	Jan. 29, 1959	322.7
Nov. 3	292.2	Nov. 22	307.0	Jan. 31, 1957	309.6	Jan. 7, 1960	327.6

(D-15-10)35aaa. State of Arizona. Drilled unused water-table well in sand and gravel, diam 6 in, depth 295 ft, cased to 295. Lsd about 2,530 ft above msl. MP top of casing, at lsd. Highest water level 212.2 below lsd, Oct. 7, 1948; lowest 223.4 below lsd, Nov. 14, 1955. Records available: 1940-42, 1944, 1946-57, 1959-60. No measurement made in 1958. Jan. 13, 1956, 219.2; Aug. 13, 218.2; Feb. 1, 1957, 218.8; July 22, 219.0; Dec. 27, 219.7; Jan. 29, 1959, 220.3; Jan. 7, 1960, 221.6.

(D-15-13)2cca. City of Tucson. Dug and drilled unused water-table well in sand and gravel, diam 12 in, depth 104 ft. Lsd about 2,430 ft above msl. MP top of casing, 3.90 ft above lsd. Highest water level 31.7 below lsd, July 29, 1942; lowest 71.0 below lsd, July 25-31, 1960. Records available: 1942-60.

Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	50.4	48.8	48.3	48.7	48.8	52.1	54.2	52.1	57.6	60.2	60.3	59.9
10	50.3	48.8	48.5	48.8	49.3	52.7	54.8	54.0	58.1	60.5	60.3	59.6
15	49.9	48.5	48.7	49.0	49.9	53.4	51.6	54.4	58.6	60.4	60.3	59.6
20	49.7	48.3	48.5	48.9	50.3	54.0	52.6	55.0	59.0	60.7	60.3	59.2
25	49.5	48.3	48.3	49.1	51.0	54.8	53.6	56.1	59.5	60.6	60.0	59.0
Eom	49.4	....	48.6	48.9	51.4	55.2	50.6	56.7	59.9	60.3	60.1	58.8

(D-15-13)2cca--Continued.

1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	58.6	57.8	57.2	58.1	60.8	62.4	64.5	64.0	60.5	64.9	60.4	60.9
10	58.4	57.7	57.4	58.6	61.1	62.7	64.4	e63.6	62.2	64.5	61.0	60.9
15	58.3	57.7	57.5	59.2	60.9	63.0	64.9	e63.2	62.3	63.8	60.9	60.9
20	58.2	57.5	57.6	59.7	61.2	63.5	64.2	61.1	64.1	63.2	60.9	60.8
25	58.1	57.3	57.6	59.6	61.5	63.7	64.5	61.3	64.3	62.7	60.9	60.8
Eom	57.9	....	57.6	60.0	61.9	64.2	64.2	62.4	64.9	62.0	61.0	60.8

1958

5	60.8	60.1	59.9	59.3	60.7	64.1	64.8	61.8	58.1	62.0	62.8	62.2
10	60.6	59.8	59.6	59.2	61.1	64.5	63.6	57.6	58.8	61.8	62.8	62.1
15	60.7	59.8	59.6	59.2	61.6	64.7	64.7	55.6	59.6	62.2	62.5	62.0
20	60.8	59.8	59.4	59.5	62.4	65.2	63.9	57.3	61.0	62.6	62.2	62.0
25	60.5	59.8	59.4	60.1	63.0	65.4	64.6	57.6	61.6	63.2	62.3	61.9
Eom	60.2	....	59.2	60.4	63.6	65.6	60.7	57.9	61.2	63.2	62.2	61.9

1959

5	61.8	61.2	62.2	63.7	65.4	66.9	68.7	65.6	63.6	68.1	67.6	66.4
10	61.7	61.2	62.6	64.0	65.6	67.2	69.0	64.9	65.4	68.4	67.3	66.1
15	61.6	61.4	62.8	64.4	65.9	67.6	69.2	63.7	66.2	68.4	67.0	66.0
20	61.5	61.6	63.0	64.5	66.0	67.9	67.9	62.5	67.0	68.5	66.6	65.8
25	61.4	61.8	63.3	64.9	66.3	68.3	66.0	61.0	67.5	68.4	66.4	65.6
Eom	61.2	....	63.5	65.1	66.6	68.6	66.1	61.8	67.8	68.1	66.3	65.3

1960

5	65.2	61.3	62.0	64.0	66.0	68.1	69.8	70.2	65.4	68.1	67.9	68.5
10	64.3	61.5	62.5	64.6	66.3	68.3	70.3	67.8	66.0	66.8	68.2	68.4
15	60.3	61.9	63.2	65.1	66.8	68.8	70.6	64.7	65.0	64.9	68.8	68.4
20	58.1	61.6	63.3	65.3	67.1	69.2	70.9	66.0	66.4	65.7	69.0	68.6
25	59.4	61.6	63.6	65.6	67.3	69.6	71.0	65.3	67.0	66.2	68.9	68.5
Eom	60.4	....	63.6	65.8	67.5	69.8	71.0	65.4	67.8	66.6	68.7	68.1

e Estimated.

(D-17-9)1bcc. King Investment Co. Drilled domestic water-table well in alluvial fill, diam 6 in, reported depth 217 ft. Lsd about 2,760 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 182.9 below lsd, May 14, 1957; lowest 186.7 below lsd, Dec. 13, 1951. Records available: 1946, 1949-58. Measurement discontinued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 22, 1946	185.6	Aug. 21, 1952	183.9	Nov. 3, 1953	183.5	Sept. 20, 1955	184.3
Nov. 15, 1949	183.9	Nov. 26	183.4	Feb. 9, 1954	a186.9	Aug. 13, 1956	184.0
Oct. 18, 1950	183.8	Jan. 22, 1953	183.4	May 7	183.8	May 14, 1957	182.9
Dec. 13, 1951	186.7	Apr. 23	183.5	Aug. 3	183.9	Sept. 5	183.0
May 12, 1952	183.7	July 14	183.7	Nov. 23	185.0	Mar. 21, 1958	183.1

a Well being pumped.

(D-17-14)18cab. Arizona State Highway Dept. Dug observation water-table well in sand and gravel, diam 36 to 12 in, depth 124 ft, cased to 124. Lsd about 2,710 ft above msl. MP top of concrete curb, 1.00 ft above lsd. Highest water level 52.2 below lsd, Jan. 2, 1940; lowest 83.1 below lsd, June 10-25, 1960. Records available: 1939-60.

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	71.0	70.8	73.2	76.7	77.3	77.9	78.3	77.6	75.6	75.0	75.4	
10	71.0	70.9	73.7	77.1	77.0	78.0	78.3	77.3	75.4	75.7	75.5	
15	71.2	71.1	74.4	77.5	76.9	78.1	78.3	76.9	75.3	75.4	75.3	75.6
20	71.1	71.8	75.0	77.7	77.3	78.2	78.2	76.5	75.2	75.2	75.4	75.6
25	71.0	72.3	75.5	77.8	77.6	78.3	78.0	76.2	75.3	75.1	75.4	75.7
Eom	70.8	....	76.1	77.7	78.4	78.4	75.9	75.4	75.0	75.4	75.7	

1957

5	75.8	75.8	77.8	79.6	78.1	77.9	79.4	78.1	78.9	79.1	78.5	78.3
10	75.8	75.9	78.3	79.3	78.0	78.3	79.6	79.0	79.1	78.9	78.4	78.4
15	75.8	76.1	78.8	79.1	77.8	78.6	79.7	79.0	79.3	78.8	78.4	79.0
20	75.7	76.4	79.2	78.9	77.6	78.9	79.4	78.7	79.6	78.8	78.3	79.1
25	75.6	77.0	79.6	78.7	77.4	79.1	79.1	78.5	79.6	78.7	78.3	79.2
Eom	75.7	....	79.8	78.4	77.5	79.2	78.8	78.4	79.2	78.6	78.3	79.3

1958

5	79.6	80.5	81.0	81.7	81.1	79.1	78.3	76.9	76.6	75.7	74.8	75.2
10	80.0	80.5	81.1	81.8	80.7	79.0	78.0	76.8	76.6	75.4	74.8	75.3
15	80.1	80.6	81.2	81.7	80.3	78.9	77.7	76.6	76.4	75.3	74.9	75.4
20	80.2	80.8	81.4	81.7	79.9	78.8	77.5	76.6	76.2	75.2	75.0	75.4
25	80.4	80.8	81.5	81.6	79.6	78.6	77.4	76.6	76.1	75.1	75.1	75.6
Eom	80.4	....	81.6	81.5	79.3	78.5	77.2	76.6	75.9	75.0	75.2	75.8

(D-17-14)18cab--Continued.

1959												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	76.1	77.4	78.9	80.2	81.0	79.4	78.7	78.4	77.9	77.3	76.3	76.3
10	76.3	77.7	79.2	80.4	80.8	79.2	78.6	78.4	77.9	77.2	76.1	76.4
15	76.4	78.0	79.5	80.6	80.5	79.0	78.5	78.2	77.8	77.0	76.1	76.5
20	76.6	78.2	79.5	80.8	80.2	78.8	78.4	78.1	77.8	76.7	76.1	76.6
25	76.8	78.4	79.7	81.0	79.9	78.8	78.4	78.0	77.7	76.5	76.1	76.7
Eom	77.0	....	79.9	81.0	79.7	78.7	78.4	78.0	77.5	76.4	76.2	76.8
1960												
5	77.1	77.9	79.3	81.4	82.7	83.0	82.9	82.6	81.8	81.8	81.5	81.7
10	77.2	78.1	79.6	81.6	82.7	83.1	82.8	82.6	81.7	82.0	81.5	81.7
15	77.3	78.4	80.0	81.9	82.8	83.1	82.8	82.5	81.6	81.9	81.5	81.8
20	77.5	78.6	80.4	82.1	82.9	83.1	82.8	82.4	81.5	81.8	81.5	81.9
25	77.6	78.8	80.7	82.3	83.0	83.1	82.7	82.3	81.6	81.7	81.6	82.1
Eom	77.8	....	81.0	82.5	83.0	82.9	82.6	82.1	81.7	81.6	81.6	82.4

(D-19-16)10ddd. W. W. Foskett. Drilled stock water-table well in alluvial fill, diam 6 in, reported depth 300 ft. Lsd about 4,980 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 205.1 below lsd, Sept. 21, 1955; lowest 220.3 below lsd, Sept. 26, 1956. Records available: 1952-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30, 1952	206.6	Apr. 8, 1953	213.3	Nov. 29, 1954	a216.2	Sept. 4, 1957	219.2
May 20	209.0	Aug. 3	a214.2	Sept. 21, 1955	205.1	Mar. 22, 1958	214.6
Sept. 17	207.5	Feb. 2, 1954	a219.0	Jan. 25, 1956	213.9	Feb. 5, 1959	216.9
Dec. 11	207.6	Aug. 24	219.8	Sept. 26	220.3	Feb. 4, 1960	218.6
Jan. 13, 1953	211.5						

a Well being pumped.

(D-22-8)19dbc. Rancho de la Osa. Drilled domestic and stock water-table well in alluvial fill, diam 8 in, reported depth 160 ft. Lsd about 3,610 ft above msl. MP top of casing, 1.00 ft above lsd (since July 14, 1953). Highest water level 91.2 below lsd, Oct. 18, 1950; lowest 96.2 below lsd, Jan. 5, 1960. Records available: 1950-60.

Oct. 18, 1950	91.2	Jan. 22, 1953	92.5	May 7, 1954	94.1	May 14, 1957	95.3
Dec. 13, 1951	91.6	Apr. 23	92.8	Aug. 27	93.7	Sept. 5	95.6
May 12, 1952	91.6	July 14	93.1	Nov. 23	94.4	Mar. 21, 1958	95.9
Aug. 21	92.0	Nov. 3	93.5	Sept. 20, 1955	92.3	Feb. 3, 1959	95.8
Nov. 26	92.3	Feb. 9, 1954	93.8	Aug. 13, 1956	93.9	Jan. 5, 1960	96.2

Pinal County

(D-2-10)8ccc. E. M. Little. Drilled unused water-table well in sand and gravel, diam 8 in, depth 437 ft. Lsd 1,902.5 ft above msl. MP top of casing, 0.20 ft above lsd. Highest water level 396.8 below lsd, Jan. 22, 1946; lowest 413.6 below lsd, Feb. 19, 1960. Records available: 1939-60.

Feb. 28, 1956	406.5	Aug. 2, 1956	407.2	Feb. 8, 1957	407.4	Jan. 6, 1959	411.5
May 3	406.8	Nov. 2	407.7	Jan. 14, 1958	409.8	Feb. 19, 1960	413.6

(D-4-2)13ccc. Berry. Drilled unused water-table well in alluvial fill, diam 20 in, reported depth 408 ft, cased to 408. Lsd 1,175 ft above msl. MP top of casing, at lsd. Highest water level 67.7 below lsd, Feb. 17, 1953; lowest 81.4 below lsd, Sept. 17, 1957. Records available: 1953-60.

Feb. 17, 1953	67.7	Feb. 24, 1956	75.8	Sept. 27, 1956	76.1	Apr. 30, 1957	78.7
Feb. 17, 1954	70.7	Mar. 26	77.2	Oct. 31	75.1	June 27	80.8
Jan. 18, 1955	73.4	Apr. 30	77.8	Nov. 29	74.8	Sept. 17	81.4
Oct. 26	74.8	May 30	78.9	Dec. 26	75.1	Jan. 13, 1958	79.4
Nov. 23	74.1	June 27	76.8	Jan. 14, 1957	75.0	Jan. 12, 1959	80.1
Dec. 21	73.8	July 30	75.8	Feb. 28	75.7	Jan. 25, 1960	80.0
Jan. 16, 1956	75.5	Sept. 5	76.4	Mar. 29	77.1		

(D-4-8)2ccc. Arizona Ranches, Inc. Drilled unused water-table well in sand and gravel, diam 20 in, depth 237 ft. Lsd 1,530.5 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 158.0 below lsd, June 12, 1941; lowest 237.6 below lsd, Jan. 14, 1958. Records available: 1941-60.

Mar. 6, 1956	231.7	Aug. 2, 1956	233.3	Feb. 8, 1957	234.7	Jan. 13, 1959	236.0
May 3	232.3	Nov. 2	234.2	Jan. 14, 1958	237.6	Feb. 18, 1960	237.0

(D-4-9)25bcc. State of Arizona. Drilled observation water-table well in alluvial fill, diam 8 in, depth 250 ft. Lsd about 1, 480 ft above msl. MP top of casing, 3.40 ft above lsd. Highest water level 77.6 below lsd, Feb. 20, 1950; lowest 123.6 below lsd, Jan. 26, 1960. Records available: 1950-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 20, 1950	77.6	May 12, 1953	93.6	Nov. 23, 1955	109.0	Nov. 29, 1956	113.7
Aug. 30	81.7	Aug. 31	c101.5	Dec. 21	106.7	Dec. 27	114.2
Dec. 7	81.8	Nov. 19	c99.8	Jan. 17, 1956	111.7	Jan. 16, 1957	112.7
Feb. 6, 1951	81.4	Feb. 17, 1954	98.1	Mar. 30	113.9	Feb. 27	113.9
June 21	86.5	May 4	104.2	Apr. 30	110.6	Mar. 28	113.3
Sept. 7	88.0	Aug. 19	103.0	May 30	110.9	Apr. 29	115.3
Dec. 28	87.1	Jan. 26, 1955	105.2	June 27	111.5	June 27	119.0
Feb. 14, 1952	85.8	Mar. 31	107.4	July 30	112.4	Sept. 16	120.1
July 9	93.6	June 27	110.3	Sept. 5	113.5	Jan. 14, 1958	118.8
Dec. 1	96.6	Oct. 12	108.1	27	114.0	Jan. 12, 1959	118.9
Feb. 11, 1953	c96.8	26	109.6	Oct. 30	113.7	Jan. 26, 1960	123.6

c Nearby well being pumped.

(D-4-14)21bdd. Wilkens. Drilled unused water-table well in alluvial fill, diam 20 in, reported depth 80 ft, cased to 76. Lsd about 1, 790 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 5.7 below lsd, Feb. 6, 1959; lowest 8.3 below lsd, Dec. 8, 1953. Records available: 1952-55, 1957-60. No measurement made in 1956.

Apr. 14, 1952	6.3	Apr. 30, 1953	7.2	May 10, 1954	7.2	Sept. 9, 1957	8.1
June 27	6.7	July 6	8.2	Dec. 9	6.7	Mar. 24, 1958	6.3
Aug. 29	6.2	Dec. 8	8.3	Sept. 28, 1955	6.8	Feb. 6, 1959	5.7
Dec. 22	7.4	Mar. 2, 1954	7.8	May 14, 1957	8.2	Feb. 26, 1960	6.7
Feb. 2, 1953	7.3						

(D-5-3)25add. Decker and Miller. Drilled irrigation water-table well in sand and gravel, diam 20 in, depth 550 ft, cased to 550. Lsd about 1, 240 ft above msl. MP hole in pumpbase, 0.60 ft above lsd. Highest water level 119.4 below lsd, Feb. 2, 1951; lowest 211.3 below lsd, Jan. 17, 1957. Records available: 1951-52, 1954-58, 1960. No measurement made in 1959.

Jan. 18, 1956	177.3	Oct. 31, 1956	209.4	Dec. 26, 1956	190.0	Jan. 15, 1958	200.5
Apr. 10	b206.2	Nov. 29	193.1	Jan. 17, 1957	211.3	Jan. 27, 1960	201.0

b Well pumped recently.

(D-5-9)29ada. Bureau of Indian Affairs well 76. Drilled unused water-table well in sand and gravel, diam 16 in, reported depth 616 ft, perforated 134-440. Lsd 1,520.0 ft above msl. MP top of casing, 1.50 ft above lsd. Highest water level 114.2 below lsd, Feb. 16, 1944; lowest 205.9 below lsd, Oct. 30, 1956. Records available: 1942-57, 1959-60. No measurement made in 1958. Jan. 16, 1956, 175.4; Apr. 18, 197.0; Oct. 30, 205.9; Jan. 16, 1957, 177.2; Jan. 12, 1959, 197.0; Jan. 25, 1960, 198.8.

(D-6-8)21dcc. W. H. Simmons. Drilled irrigation water-table well in alluvial fill, diam 20 in, reported depth 400 ft. Lsd about 1, 470 ft above msl. MP hole in pumpbase, 1.50 ft above lsd. Highest water level 117.3 below lsd, Feb. 5, 1952; lowest 171.6 below lsd, Oct. 12, 1955. Records available: 1952-56, 1960. No measurement made in 1957, 1958 or 1959.
Feb. 5, 1952
Feb. 18, 1953

Feb. 5, 1952	117.3	Jan. 25, 1955	139.6	Oct. 12, 1955	171.6	Apr. 18, 1956	b166.5
Feb. 18, 1953	130.4	Mar. 31	166.0	Jan. 19, 1956	152.8	Jan. 26, 1960	156.2
Feb. 17, 1954	148.7						

b Well pumped recently.

(D-6-11)27bbd. Grathan and Carney. Drilled stock water-table well in alluvial fill, diam 4 in, reported depth 300 ft. Lsd about 2, 300 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 28.5 below lsd, Feb. 10, 1960; lowest 33.1 below lsd, July 7, 1953, Feb. 25, 1954. Records available: 1953-54, 1956, 1960. No measurement made in 1955, 1957, 1958 or 1959.

Jan. 8, 1953	32.1	Feb. 25, 1954	33.1	Aug. 19, 1954	32.3	Sept. 25, 1956	30.4
July 7	33.1	May 13	a34.6	Dec. 6	29.6	Feb. 10, 1960	28.5
Dec. 9	32.5						

a Well being pumped.

(D-6-16)33bad. Fred Ash. Drilled unused water-table well in alluvial fill, diam 12 in, reported depth 60 ft. Lsd about 2, 100 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 8.2 below lsd, Jan. 27, 1956; lowest 18.5 below lsd, Dec. 7, 1953. Records available: 1949-60.

Sept. 22, 1949	15.0	Mar. 6, 1951	13.9	Dec. 9, 1952	15.7	Sept. 29, 1955	10.9
Nov. 18	15.3	May 11	13.9	Feb. 3, 1953	13.3	Jan. 27, 1956	8.2
Feb. 8, 1950	12.5	July 3	16.9	May 1	12.6	May 13, 1957	16.8
Mar. 27	12.0	Sept. 5	16.0	July 6	17.6	Sept. 9	15.1
June 2	15.4	Nov. 14	17.3	Dec. 7	18.5	Mar. 24, 1958	8.5
Sept. 11	15.4	Apr. 23, 1952	9.4	Mar. 1, 1954	18.0	Feb. 6, 1959	9.5
Nov. 8	15.9	June 24	13.7	May 10	15.0	Feb. 29, 1960	8.5
Jan. 11, 1951	16.1	Aug. 27	14.4	Aug. 17	9.9		

(D-7-7)11ccdd. E. C. Grasty. Drilled irrigation water-table well in sand and gravel, diam 20 in, depth 460 ft, perforated 100-430. Lsd 1,498.2 ft above msl. MP at pumpbase and concrete curb, 2.00 ft above lsd. Highest water level 85.9 below lsd, Mar. 11, 1942; lowest 222.6 below lsd, Jan. 27, 1960. Records available: 1942-57, 1959-60. No measurement made in 1958. Jan. 18, 1956, 204.8; Jan. 17, 1957, 202.2; Jan. 13, 1959, 217.5; Jan. 27, 1960, 222.6.

(D-8-6)30dad. Chiu Chuischu Ranch. Drilled irrigation water-table well in sand and gravel, diam 20 in, depth 296 ft, perforated 69-200. Lsd about 1,510 ft above msl. MP top of casing, at lsd. Highest water level 108.6 below lsd, July 28, 1948; lowest 187.3 below lsd, Jan. 28, 1960. Records available: 1948-52, 1954-60. Jan. 18, 1956, 150.9; Apr. 10, 179.1; July 12, 171.2; Jan. 17, 1957, 167.4; Jan. 17, 1958, 174.4; Jan. 16, 1959, 178.8; Jan. 28, 1960, 187.3.

(D-8-17)19dad. Carmen and Edward Mungaray. Drilled domestic water-table well in alluvial fill, diam 6 in, reported depth 46 ft. Lsd about 2,400 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 5.7 below lsd, Jan. 26, 1956; lowest 18.2 below lsd, Dec. 7, 1953. Records available: 1949-58. No measurement made in 1959 or 1960.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 21, 1949	11.6	Jan. 11, 1951	14.8	June 24, 1952	15.2	May 10, 1954	17.3
Nov. 18	13.6	Mar. 6	14.9	Aug. 26	13.7	Dec. 9	9.7
Feb. 8, 1950	12.1	May 11	15.2	Dec. 8	16.5	Sept. 29, 1955	5.8
Mar. 27	12.3	July 3	14.1	Feb. 3, 1953	16.3	Jan. 26, 1956	5.7
June 2	14.3	Sept. 6	13.7	May 1	16.6	May 13, 1957	13.5
Sept. 11	12.3	Nov. 14	12.2	July 3	b19.1	Sept. 9	13.1
Nov. 8	14.6	Apr. 24, 1952	13.4	Dec. 7	18.2	Mar. 24, 1958	9.4

b Well pumped recently.

(D-9-10)19aaa. Clemens Cattle Co. Drilled unused water-table well in alluvial fill, diam 20 in, depth 600 ft, cased to 486, perforated 240-486. Lsd about 1,830 ft above msl. MP top of casing, 1.50 ft above lsd. Highest water level 181.1 below lsd, Mar. 28, 1955; lowest 208.7 below lsd, July 5, 1956. Records available: 1953-60.

Feb. 10, 1953	184.4	Dec. 27, 1955	188.9	Dec. 27, 1956	190.7	June 27, 1957	c209.9
Feb. 11, 1954	187.6	Apr. 17, 1956	200.6	Jan. 18, 1957	191.0	Sept. 16	c210.5
Jan. 12, 1955	188.0	July 5	208.7	Feb. 27	c204.1	Jan. 3, 1958	191.5
Mar. 28	181.1	Oct. 30	191.9	Mar. 28	c202.7	Jan. 16, 1959	193.0
June 30	206.6	Nov. 29	190.5	Apr. 29	198.6	Jan. 6, 1960	194.6
Oct. 10	191.7						

c Nearby well being pumped.

(D-9-13)7cccc. Foreman. Drilled stock water-table well in alluvial fill, diam 6 in, reported depth 275 ft. Lsd about 3,115 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 43.0 below lsd, Sept. 23, 1955; lowest 111.5 below lsd, Jan. 6, 1953. Records available: 1952-60.

Oct. 2, 1952	59.6	Feb. 25, 1954	a96.8	Sept. 23, 1955	43.0	Mar. 26, 1958	49.5
Jan. 6, 1953	111.5	May 13	88.0	Sept. 25, 1956	96.0	Feb. 4, 1959	65.2
July 7	87.7	Aug. 20	77.8	Sept. 13, 1957	74.7	Feb. 10, 1960	50.8
Dec. 9	82.0	Dec. 6	101.5				

a Well being pumped.

(D-9-15)36bbbc. A. I. Kendall. Dug domestic water-table well in granitic rocks, diam 48 in, reported depth 92 ft. Lsd about 4,500 ft above msl. MP top of floor board, 0.40 ft above lsd. Highest water level 61.2 below lsd, Feb. 26, 1960; lowest 82.1 below lsd, Aug. 16, 1954. Records available: 1949-60.

Sept. 1, 1949	68.1	May 11, 1951	71.6	Feb. 2, 1953	70.7	Sept. 29, 1955	79.5
Nov. 18	68.2	July 3	74.1	May 1	72.7	Jan. 26, 1956	77.8
Feb. 8, 1950	68.0	Sept. 6	72.8	July 3	76.5	May 13, 1957	82.0
Mar. 27	67.9	Nov. 14	74.8	Dec. 7	75.2	Sept. 9	79.1
June 2	67.8	June 24, 1952	70.8	Mar. 1, 1954	76.2	Mar. 24, 1958	67.5
Sept. 26	69.6	Aug. 27	71.5	May 10	77.8	Feb. 6, 1959	70.9
Nov. 8	70.8	Dec. 8	72.1	Aug. 16	82.1	Feb. 26, 1960	61.2
Jan. 11, 1951	71.2						

(D-10-9)16cccc. L. Kinney. Drilled unused water-table well in alluvial fill, diam 20 in, depth 400 ft, cased to 392, perforated 170-378. Lsd about 1,780 ft above msl. MP top of casing, 2.00 ft above lsd. Highest water level 209.8 below lsd, Feb. 10, 1954; lowest 260.0 below lsd, Jan. 7, 1960. Records available: 1954-60.

Feb. 10, 1954	209.8	Apr. 30, 1956	227.2	Oct. 30, 1956	231.5	Apr. 29, 1957	236.7
Jan. 12, 1955	217.9	May 30	228.2	Nov. 29	231.7	June 27	238.5
Oct. 24	234.0	June 27	229.2	Dec. 27	231.2	Sept. 16	244.4
Nov. 22	224.6	July 30	230.8	Jan. 18, 1957	230.8	Jan. 3, 1958	232.0
Dec. 21	224.4	Sept. 5	232.0	Feb. 27	231.4	Jan. 16, 1959	235.2
Feb. 24, 1956	224.5	27	232.7	Mar. 28	236.1	Jan. 7, 1960	260.0
Mar. 26	226.6						

Santa Cruz County

(D-22-13)35dcd. T. T. Pendleton. Drilled irrigation water-table well in sand and gravel, diam 20 in, depth 88 ft, cased. Lsd about 3, 430 ft above msl. MP south side of 1½-in pipe, 0.50 ft above lsd. Highest water level 9.9 below lsd, Feb. 8, 1960; lowest 53.7 below lsd, Feb. 9, 1954. Records available: 1939-57, 1959-60. No measurement made in 1958.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6, 1956	10.2	Apr. 23, 1956	12.1	Nov. 7, 1956	20.9	Dec. 26, 1957	40.2
Feb. 22	10.6	May 23	13.0	Dec. 6	22.2	Jan. 28, 1959	23.5
Mar. 23	11.0	Aug. 10	15.7	Jan. 31, 1957	25.4	Feb. 8, 1960	9.9

(D-22-15)12aad. V. Farley. Drilled domestic water-table well in alluvial fill, diam 8 in, reported depth 60 ft, cased to 60. Lsd about 4, 038 ft above msl. MP top of concrete base, 1.00 ft above lsd (since Jan. 13, 1953). Highest water level 10.1 below lsd, Jan. 25, 1956; lowest 26.0 below lsd, June 8, 1954. Records available: 1949, 1952-60.

Aug. 31, 1949	16.5	Jan. 13, 1953	13.5	June 8, 1954	26.0	Sept. 26, 1956	17.2
Jan. 30, 1952	18.6	Apr. 8	16.3	Aug. 6	15.2	Sept. 4, 1957	25.2
May 15	16.0	Aug. 3	20.9	Nov. 29	18.1	Mar. 27, 1958	16.3
Sept. 17	11.6	Nov. 9	23.7	Sept. 21, 1955	13.9	Feb. 5, 1959	14.6
Dec. 11	11.7	Feb. 2, 1954	21.9	Jan. 25, 1956	10.1	Feb. 4, 1960	17.6

(D-23-14)27baa. Ramon Michelena. Dug unused water-table well in sand and gravel, diam 5 ft, depth 36 ft, concrete casing to 9, open-hole 9-36. Lsd about 3, 550 ft above msl. MP top of concrete casing, 0.30 ft above lsd. Highest water level 12.6 below lsd, Jan. 6, 1960; lowest 21.8 below lsd, July 28, 1948. Records available: 1939-57, 1959-60. No measurement made in 1958.

Jan. 6, 1956	16.7	May 23, 1956	16.9	Nov. 7, 1956	18.0	Dec. 23, 1957	19.1
Feb. 22	16.6	June 21	17.8	Dec. 6	17.5	Jan. 28, 1959	17.5
Mar. 23	16.5	Aug. 10	16.1	Jan. 31, 1957	16.9	Jan. 6, 1960	12.6
Apr. 23	16.5	Oct. 9	18.1	July 17	19.1		

(D-24-17)11cab. U. S. Geol. Survey. Driven observation water-table well in alluvial fill, diam 1 in, depth 23 ft, cased to 23. Lsd about 4, 650 ft above msl. MP top of casing, 1.40 ft above lsd. Highest water level 1.8 below lsd, Dec. 30, 1955; lowest 7.8 below lsd, July 1, 1960. Records available: 1949-60.

Jan. 21, 1949	3.7	May 3, 1951	c4.7	June 26, 1953	c6.5	Apr. 28, 1955	4.2
Feb. 11	4.1	June 5	c6.0	July 10	6.5	May 25	6.1
Mar. 8	4.2	26	c7.4	15	6.1	June 28	c7.4
Apr. 8	4.7	July 16	7.1	16	5.8	July 18	6.8
30	5.3	26	6.4	22	5.6	25	5.3
June 25	7.2	Aug. 4	5.4	31	5.5	30	4.1
July 21	5.8	19	5.2	Aug. 7	c6.3	Aug. 1	3.0
22	5.7	21	5.2	14	c5.8	16	3.4
Aug. 6	5.9	30	5.2	27	c6.6	22	2.3
9	5.2	Sept. 21	5.3	Sept. 24	c6.5	31	3.2
19	6.2	Oct. 11	c6.3	Oct. 20	c7.6	Sept. 29	c4.3
Sept. 9	5.5	Nov. 8	4.8	Nov. 17	c8.0	Oct. 31	c4.5
15	5.1	Dec. 5	4.6	Dec. 17	c7.6	Nov. 29	4.3
29	5.1	Jan. 8, 1952	4.4	Jan. 15, 1954	6.2	Dec. 30	1.8
Oct. 19	c6.0	31	4.5	Feb. 11	5.5	Jan. 29, 1956	4.1
Nov. 14	5.7	Feb. 28	4.4	Mar. 12	c6.7	Feb. 29	4.1
Dec. 9	5.3	Mar. 28	4.5	Apr. 9	c5.0	Mar. 29	5.4
Jan. 9, 1950	4.5	Apr. 24	4.0	May 5	c6.4	Apr. 30	5.1
Feb. 2	4.6	May 25	5.6	27	c7.2	May 30	4.9
Mar. 3	4.5	June 12	5.4	June 24	c8.2	June 30	6.1
30	c5.5	July 8	c7.5	July 1	c8.3	July 30	5.8
Apr. 27	c6.4	24	6.4	12	6.7	Aug. 28	5.5
May 24	c7.2	29	6.3	20	6.7	Sept. 28	6.1
June 17	c8.2	Aug. 5	6.3	22	6.2	Nov. 8	7.7
July 8	6.6	13	5.7	26	5.8	Dec. 3	7.3
23	4.1	18	5.4	Aug. 1	5.2	Jan. 11, 1957	5.02
Aug. 2	4.1	27	c5.4	5	4.8	31	4.93
10	4.5	Sept. 15	5.8	10	4.8	Feb. 28	4.65
24	4.9	Oct. 7	c5.6	12	c4.7	Mar. 2	4.64
Sept. 11	c5.3	Nov. 7	5.5	18	4.7	30	c5.18
Oct. 1	5.4	Dec. 4	5.4	26	4.6	June 3	c6.13
29	5.9	Jan. 5, 1953	5.1	Sept. 21	5.1	July 3	c6.05
Dec. 3	6.4	Feb. 9	5.5	Dec. 21	5.2	30	c5.99
28	c5.3	Mar. 11	4.6	Jan. 19, 1955	4.6	Aug. 6	5.85
Jan. 29, 1951	4.8	Apr. 8	c5.6	Feb. 16	4.4	19	c6.34
Feb. 26	c4.9	May 7	c5.5	Mar. 10	4.4	Sept. 11	5.82
Apr. 4	c4.5	June 4	c6.3	Apr. 6	c5.1	30	6.65

(D-24-17)11cab--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 31, 1957	6.42	Nov. 4, 1958	4.4	Aug. 31, 1959	5.4	June 1, 1960	c7.4
Dec. 3	5.73	Dec. 2	4.2	Sept. 8	5.7	July 1	7.8
Jan. 1, 1958	5.4	Jan. 2, 1959	4.1	Oct. 7	5.3	27	c8.0
Feb. 3	4.9	Feb. 2	4.0	Nov. 5	5.2	Aug. 3	c7.7
Mar. 4	4.8	Mar. 3	4.2	Dec. 1	4.9	10	7.1
31	4.6	Apr. 20	5.0	Jan. 4, 1960	4.4	17	c7.0
Apr. 30	4.5	May 28	5.4	14	5.1	25	c7.2
May 30	c5.8	July 2	6.6	19	4.9	Sept. 1	c7.6
July 2	5.6	22	5.7	Feb. 14	5.0	9	c7.3
31	5.1	Aug. 4	6.4	Mar. 1	5.2	Nov. 1	6.9
Aug. 25	4.4	11	6.2	Apr. 1	c5.3	Dec. 1	6.5
Sept. 30	4.2	18	5.6	May 3	c6.5		

c Nearby well being pumped.

Yavapai County

(B-11-5)25dab. Mr. Towne. Drilled unused water-table well in sand and gravel, diam 8 in, depth 212 ft, cased to 55. Lsd about 4, 485 ft above msl. MP top of casing, 1.40 ft above lsd. Highest water level 23.6 below lsd, July 16, 1952; lowest 40.8 below lsd, Aug. 4, 1951. Records available: 1946, 1948-49, 1951-57, 1959-60. No measurement made in 1958. June 21, 1956, 34.6; Oct. 22, 36.6; May 28, 1957, 36.5; Dec. 18, 37.2; Mar. 3, 1959, 34.3; Mar. 15, 1960, 32.2.

(B-13-6)9dd. J. W. Ropeter. Dug irrigation water-table well in sand and gravel, diam 6 ft, depth 22 ft (well has been deepened), wood-lined. Lsd about 2, 500 ft above msl. MP through bolt hole of pumpbase, at lsd. Highest water level 14.0 below lsd, Jan. 17, 1945; lowest 18.1 below lsd, June 1, 1955. Records available: 1945-49, 1951-57, 1959-60. No measurement made in 1958. June 21, 1956, 29.7 (well being pumped); Oct. 23, 32.8 (well being pumped); May 28, 1957, 17.2; Dec. 18, 17.2; Mar. 3, 1959, 16.8; Mar. 15, 1960, 15.9.

(B-14-4)33ab. C. C. McLain. Drilled unused water-table well in sand and gravel, diam 16 in, depth 85 ft (well has been deepened). Lsd about 4, 340 ft above msl. MP hole in casing, 0.50 ft above lsd. Highest water level 11.0 below lsd, Apr. 14, 1945; lowest 19.1 below lsd, Oct. 23, 1956. Records available: 1944-49, 1951-57, 1959-60. No measurement made in 1958. June 21, 1956, 18.2; Oct. 23, 19.1; May 28, 1957, 17.8; Dec. 18, 19.0; Mar. 3, 1959, 18.0; Mar. 15, 1960, 15.2.

Yuma County

(B-5-16)10ddd. Crowder Cattle Co. Drilled unused water-table well in sand and gravel, diam 16 in, depth 164 ft. Lsd about 730 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 112.6 below lsd, Feb. 21, 1946; lowest 114.4 below lsd, Jan. 22, 1957, Jan. 30, 1958. Records available: 1946, 1948-60. Mar. 16, 1956, 114.0; Jan. 22, 1957, 114.4; Jan. 30, 1958, 114.4; Jan. 29, 1959, 114.3; Apr. 19, 1960, 114.3.

(C-8-16)28bda. Bob Anderson. Drilled domestic water-table well in sand and gravel, diam 16 in, depth 419 ft, cased to 416. Lsd about 330 ft above msl. MP top of casing, at lsd. Highest water level 63.0 below lsd, Mar. 3, 1960; lowest 87.0 below lsd, Mar. 3, 1954. Records available: 1945-47, 1949-60. Feb. 2, 1956, 84.2; Jan. 31, 1957, 80.2; Jan. 21, 1958, 75.6; Feb. 10, 1959, 73.1; Mar. 3, 1960, 63.0.

(C-9-22)17ddd. Archie J. Griffin. Drilled unused water-table well in sand and gravel, diam 16 in, depth 195 ft. Lsd 210.5 ft above msl. MP top of casing, 1.50 ft above lsd. Highest water level 52.5 below lsd, Nov. 15, 1960; lowest 97.6 below lsd, Sept. 5, 1946. Records available: 1945-58, 1960. No measurement made in 1959. All 1960 measurements made by U. S. Bureau of Reclamation. Feb. 1, 1956, 68.1; Jan. 30, 1957, 66.0; Jan. 20, 1958, 64.6; Jan. 15, 1960, 56.8; July 13, 55.8; Nov. 15, 52.5.

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## CALIFORNIA

By E. J. McClelland, W. R. Moyle, Jr., and R. E. Evenson

The observation-well program in California was continued in the period 1956 through 1960 in cooperation with the California Department of Water Resources and Santa Barbara County. Figure 3 shows the location of observation wells included in this report.

### Well-Numbering System

The well-numbering system shows the location of wells according to the rectangular system of public-land surveys. Water-Supply Paper 991 contains a cross-reference table of previous numbers and location symbols. For well 5/10-6N1, in Antelope Valley in Los Angeles County, the segment of the number before the hyphen indicates the township and range (T. 5 N., R. 10 W.). Letters indicating cardinal directions appear in this part of the symbol if a basin or area spans two or more quadrants of a particular base and meridian. The digits between the hyphen and the letter indicate the section (sec. 6), and the letter indicates the 40-acre tract within the section as shown by the following diagram. Within the 40-acre tract, the wells are numbered serially as indicated by the final digit of the symbol. Thus, well 5/10-6N1 was the first well listed by the U. S. Geological Survey in the SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 6, T. 5 N., R. 10 W. For a well located only approximately, the symbol is shortened to the designation of township, range and section only. For areas which have never been subdivided by public-land surveys, the rectangular system has been projected, commonly after private surveys or after projections made by local officials for purposes of land assessment. The description and records are given by counties in alphabetical sequence and for each county by valleys or ground-water basins. Thus, each group of data pertains to a distinct ground-water area as indicated by subheadings in the report. Under each subhead the records are presented in numerical order of the location symbols.

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

### Well Descriptions and Water-Level Measurements

Water levels are reported in feet below land-surface datum, unless otherwise indicated.

#### Del Norte County

##### Smith River Basin

16/1W-17K1. Dan Berquist. 1.5 mi north of Crescent City. Drilled domestic water-table well in Battery Formation of Pleistocene age, diam 6 in, depth 40 ft, perforated 34-39. Lsd 49 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 11.4 below lsd, Feb. 18, 1959; lowest 24.0 below lsd, Jan. 27, 1960. Records available: 1953-54, 1958-60. No measurement made 1955-57.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 20, 1953	16.1	Jan. 20, 1959	17.0	Sept. 23, 1959	a22.0	May 24, 1960	13.4
Aug. 5	17.1	Feb. 18	11.4	Oct. 28	22.9	June 21	13.8
Sept. 5	18.8	Mar. 18	12.9	Nov. 18	23.3	July 20	16.5
Oct. 5	20.0	Apr. 22	14.2	Dec. 16	22.8	Aug. 23	a26.1
Nov. 5	20.9	May 19	16.5	Jan. 27, 1960	24.0	Sept. 20	19.8
Dec. 3	17.0	June 23	18.2	Feb. 17	22.0	Oct. 25	21.2
Apr. 31, 1954	17.2	July 21	20.1	Mar. 30	16.6	Nov. 15	21.9
Nov. 18, 1958	22.7	Aug. 25	21.0	Apr. 26	14.1	Dec. 28	18.0
Dec. 17	22.9						

a Well being pumped.

17/1W-2P1. Homer Martin. 1.6 mi north of Ft. Dick. Drilled domestic water-table well in undifferentiated flood-plain deposits, diam 8 in, depth 26 ft. Lsd 31 ft above msl. MP top of casing, 0.20 ft above lsd. Highest water level 10.9 below lsd, Mar. 30, 1960; lowest 23.1 below lsd, Oct. 15, 1958. Records available: 1952, 1958-60. No measurement made 1953-57.

Date	Water level						
Apr. 28, 1952	19.2	Apr. 22, 1959	18.6	Nov. 18, 1959	22.1	June 21, 1960	a19.2
Oct. 15, 1958	23.1	May 19	19.9	Dec. 16	21.6	July 20	21.1
Nov. 18	17.6	June 23	21.3	Jan. 27, 1960	18.1	Aug. 23	21.8
Dec. 18	19.4	July 21	22.0	Feb. 17	16.1	Sept. 20	22.3
Jan. 20, 1959	16.5	Aug. 25	21.8	Mar. 30	10.9	Oct. 25	22.8
Feb. 18	11.7	Sept. 23	22.1	Apr. 26	17.2	Nov. 15	21.2
Mar. 18	17.7	Oct. 28	21.9	May 24	15.5	Dec. 28	17.5

a Well being pumped.

18/1W-26P1. Merlin Goodlin. 0.75 mi south of Smith River. Drilled domestic, stock, and irrigation water-table well in Pleistocene terrace deposits of Quaternary age, diam 12 in, depth 28 ft. Lsd 38 ft above msl. MP top of casing, at lsd. Highest water level 8.5 below lsd, May 28, 1952; lowest 26.9 below lsd, Oct. 15, 1958. Records available: 1952-54, 1958-60. No measurement made 1955-57.

May 28, 1952	8.5	Apr. 22, 1959	17.2	Nov. 18, 1959	19.8	June 21, 1960	18.0
July 23, 1953	10.5	May 19	18.3	Dec. 16	19.1	July 20	19.0
Aug. 20	12.8	June 23	19.0	Jan. 27, 1960	16.1	Aug. 23	22.0
Aug. 20, 1954	13.4	July 21	(a)	Feb. 17	14.6	Sept. 20	24.5
Oct. 15, 1958	26.9	Aug. 25	(a)	Mar. 30	12.4	Oct. 25	22.7
Dec. 18	16.9	Sept. 23	21.2	Apr. 26	16.5	Nov. 15	19.4
Jan. 20, 1959	13.8	Oct. 28	19.1	May 24	15.0	Dec. 28	16.6
Mar. 18	16.0						

a Well being pumped.

#### Humboldt County Eureka-Fortuna Area

3/1W-34J1. City of Fortuna. Drilled unused artesian well in Carlotta Formation of Ogle (1953) of Pliocene to Pleistocene age, diam 12 in, depth 496 ft, perforated 182-226, 285-365. Lsd 60 ft above msl. MP  $\frac{1}{2}$ -in hole in plate welded to casing, 1.00 ft above lsd. Highest water level 23.3 below lsd, Sept. 5, 1952; lowest 36.1 below lsd, Nov. 17, 1959. Records available: 1951-53, 1958-60. No measurement made 1954-57.

June 8, 1951	25.7	Jan. 20, 1959	32.5	Oct. 27, 1959	35.9	June 21, 1960	33.2
May 11, 1952	27.3	Mar. 18	31.9	Nov. 17	36.1	July 19	34.1
Aug. 4	24.7	Apr. 22	32.5	Dec. 15	36.0	Aug. 23	35.1
Sept. 5	23.3	May 19	33.4	Jan. 26, 1960	34.7	Sept. 20	35.5
Apr. 26, 1953	27.2	June 23	34.3	Feb. 16	31.4	Oct. 25	35.7
Aug. 29	24.3	July 21	35.0	Mar. 29	31.6	Nov. 15	35.8
Nov. 18, 1958	35.5	Aug. 25	35.7	Apr. 26	32.1	Dec. 28	33.0
Dec. 17	35.5	Sept. 23	35.7	May 24	32.7		

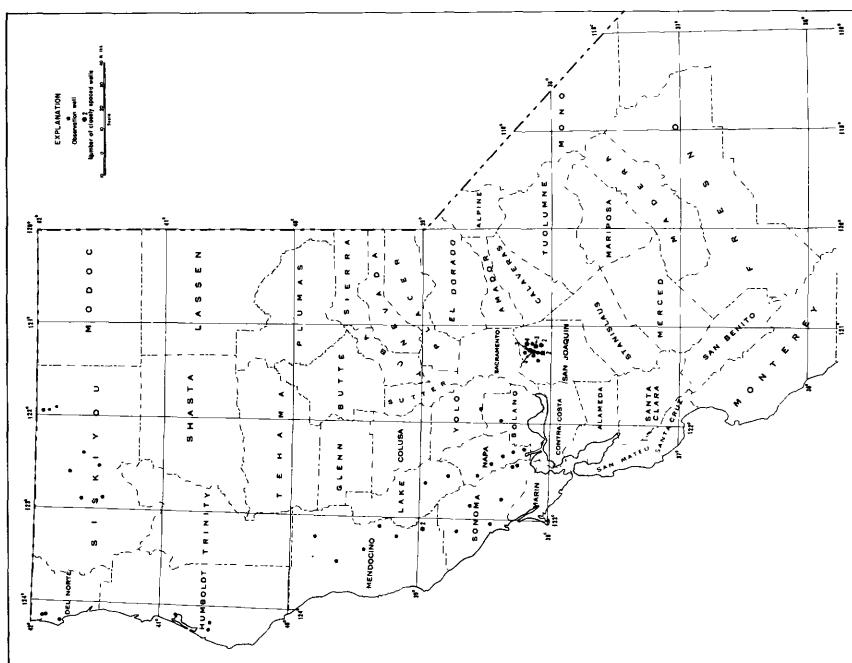
3/2W-26R1. Winfred Goble. About 4.5 mi west of Fortuna. Drilled irrigation water-table well in alluvium of Quaternary age, diam 14 in, depth 30 ft. Lsd 20 ft above msl. MP top south side of casing, 2.00 ft above lsd. Highest water level 0.00, Feb. 18, 1959; lowest 14.5 below lsd, Nov. 11, 1952. Records available: 1951-54, 1958-60. No measurement made 1955-57.

June 8, 1951	11.2	Oct. 14, 1958	12.4	July 21, 1959	a12.2	Apr. 26, 1960	6.6
May 11, 1952	9.9	Nov. 18	9.0	Aug. 25	a12.3	May 24	7.6
Aug. 4	13.8	Dec. 17	8.8	Sept. 23	9.7	June 21	7.7
Sept. 5	12.7	Jan. 20, 1959	4.8	Oct. 27	9.1	July 19	8.9
29	12.4	Feb. 18	0.0	Nov. 17	9.0	Aug. 23	9.4
Nov. 11	14.5	Mar. 18	6.4	Dec. 15	8.8	Sept. 20	10.1
Apr. 25, 1953	9.5	Apr. 22	6.9	Jan. 27, 1960	8.2	Oct. 25	9.6
Aug. 29	12.2	May 19	7.9	Feb. 17	2.7	Nov. 15	8.9
May 18, 1954	9.7	June 23	a11.8	Mar. 29	5.6	Dec. 28	6.0
Aug. 21	12.3						

a Well being pumped.

6/1E-29P1. Golden State Co., Ltd. Arcata. Drilled industrial water-table well in alluvium of Quaternary age, diam 24 in, depth 46 ft. Lsd 25 ft above msl. MP top of concrete pump foundation, 2.00 ft above lsd. Highest water level 7.3 below lsd, Feb. 18, 1959; lowest 43.0 below lsd, June 7, 1951. Records available: 1951-54, 1958-60. No measurement made 1955-57.

June 7, 1951	43.0	Apr. 27, 1953	29.4	Dec. 17, 1958	9.7	June 23, 1959	10.5
May 10, 1952	20.8	Aug. 28	28.0	Jan. 20, 1959	8.2	July 21	12.3
Aug. 5	26.7	May 18, 1954	22.0	Feb. 18	7.3	Aug. 25	13.7
Sept. 5	23.6	Aug. 20	23.2	Mar. 18	7.9	Sept. 23	11.4
29	18.4	Oct. 15, 1958	11.8	Apr. 22	9.7	Oct. 27	12.0
Nov. 11	22.7	Nov. 18	9.5	May 19	9.0	Nov. 17	10.8



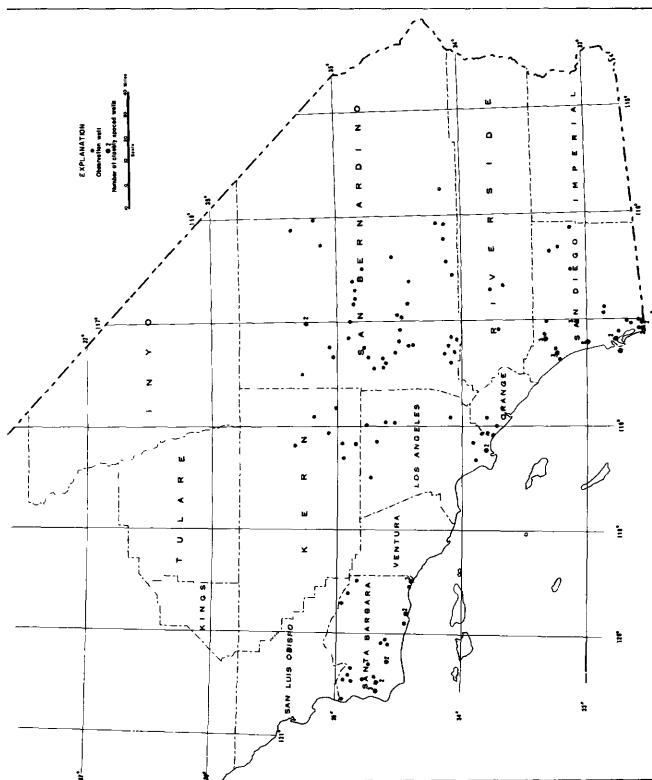


Figure 3.--Location of observation wells in California, 1956-60.

6/1E-29P1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 16, 1959	11.9	Apr. 26, 1960	7.5	July 19, 1960	9.8	Oct. 25, 1960	10.3
Jan. 27, 1960	9.0	May 24	7.7	Aug. 23	10.5	Nov. 15	10.1
Feb. 17	7.9	June 21	8.1	Sept. 20	12.2	Dec. 28	7.8
Mar. 30	7.6						

Kern County

## Antelope Valley--Lancaster Basin

9/12-21D3. T. R. Loomis. Rosamond. Drilled domestic water-table well in alluvium of Pleistocene age, diam 9 in, depth 107 ft, cased with steel. Lsd about 2,350 ft above msl. MP hole in pumpbase, 1.80 ft above lsd. Highest water level 60.73 below lsd, Feb. 14, 1952; lowest 80.20 below lsd, Nov. 10, 1960. Records available: 1951-54, 1956-60. No measurement made in 1955.

Mar. 27, 1951	64.64	June 2, 1952	a69.24	Nov. 29, 1956	69.29	Feb. 3, 1958	70.78
May 8	68.18	July 3	71.73	Mar. 1, 1957	68.40	Mar. 7	70.58
June 29	68.94	Aug. 4	a74.07	June 6	a71.31	10	70.40
July 24	a69.60	Sept. 3	72.97	July 17	a73.57	Apr. 10	70.25
Aug. 21	a70.81	Nov. 5	67.57	Aug. 14	71.35	Nov. 4	73.88
Sept. 18	a72.23	Jan. 7, 1953	63.77	Sept. 24	73.49	Mar. 9, 1959	72.89
Jan. 14, 1952	61.57	Mar. 13	66.32	Oct. 15	72.43	Dec. 3	76.58
Feb. 14	60.73	Oct. 19, 1954	69.14	Nov. 15	71.69	Mar. 2, 1960	75.71
Mar. 5	60.97	Oct. 25, 1956	69.74	Dec. 16	71.18	Nov. 10	80.20
Apr. 2	64.33						

a Well being pumped.

## Antelope Valley--Gloster Area

10/12-20C3. O. J. Backus. South of Mojave. Drilled domestic water-table well in alluvium of Pleistocene age, diam 8 in, depth about 128 ft, cased with steel. Lsd about 2,645 ft above msl. MP bottom of pumpbase, at lsd. Highest water level 93.12 below lsd, Mar. 4, 1958; lowest 94.60 below lsd, Nov. 10, 1960. Records available: 1952, 1958-60. No measurement made 1953-57. Nov. 13, 1952, 93.32; Mar. 4, 1958, 93.12; Nov. 4, 93.86; Mar. 9, 1959, 93.50; Dec. 1, 94.23; Mar. 2, 1960, 94.20; Nov. 10, 94.60.

## Antelope Valley--Willow Springs Area

10/13-19M1. Dewey Butler. North of Willow Springs. Drilled unused water-table well in alluvium of Pleistocene age, diam 16 in, depth about 770 ft, cased with steel. Lsd about 2,905 ft above msl. MP hole in casing, 1.00 ft above lsd. Highest water level 291.61 below lsd, Jan. 20, 1953; lowest 309.66 below lsd, Nov. 10, 1960. Records available: 1953-60.

Jan. 20, 1953	291.61	Mar. 21, 1956	302.34	Nov. 15, 1957	304.11	Dec. 1, 1959	309.25
Feb. 8, 1954	295.76	May 21	304.10	Mar. 4, 1958	305.60	Mar. 2, 1960	309.15
Nov. 29	299.20	Sept. 26	304.12	Nov. 4	307.32	Nov. 10	309.66
Mar. 1, 1955	299.12	Mar. 5, 1957	303.97	Mar. 9, 1959	306.61		

## Antelope Valley--North Muroc Basin

11/9-34A1. F. J. Schultz. Thundering Herd Ranch. East of Edwards. Drilled domestic water-table well in alluvium of Pleistocene age, diam 10 in, depth 194 ft, cased with steel. Lsd about 2,303 ft above msl. MP top of casing, 0.40 ft above lsd. Highest water level 93.11 below lsd, Jan. 25, 1951; lowest 102.60 below lsd, Nov. 16, 1960. Records available: 1951-52, 1955-60. No measurement made 1953-54.

Jan. 25, 1951	93.11	Nov. 27, 1956	93.80	Sept. 24, 1957	94.13	May 14, 1958	93.92
Nov. 15	93.28	Mar. 7, 1957	93.68	Oct. 16	93.79	Nov. 5	94.19
Mar. 8, 1952	93.19	Apr. 30	93.71	Nov. 15	93.75	Mar. 11, 1959	94.40
Mar. 2, 1955	93.57	June 5	94.16	Feb. 3, 1958	93.83	Dec. 4	98.27
Nov. 14	93.56	July 16	93.77	Mar. 10	93.91	Mar. 2, 1960	99.91
Mar. 22, 1956	93.60	Aug. 14	93.83	Apr. 9	93.92	Nov. 16	102.60

## Fremont Valley--Chaffee Area

11/11-8D1. Zepha Thorning. East side of Mojave. Drilled unused water-table well in alluvium of Pleistocene age, diam 12 in, depth 204 ft, cased with steel. Lsd 2,624.5 ft above msl. MP bottom hole in casing, 1.00 ft above lsd. Highest water level 198.00 below lsd, Dec. 1, 1959; lowest 218.60 below lsd, Sept. 28, 1929. Records available: 1929-30, 1952, 1954-60.

11/11-8D1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 28, 1929	218.60	Oct. 21, 1955	198.43	Aug. 14, 1957	198.75	Nov. 4, 1958	198.97
Feb. 27, 1930	218.30	Mar. 21, 1956	198.11	Sept. 24	198.71	Mar. 10, 1959	198.09
Sept. 10, 1952	198.79	Oct. 19	198.91	Oct. 15	198.71	Dec. 1	198.00
Mar. 15, 1954	198.50	Mar. 6, 1957	198.19	Nov. 19	198.73	Mar. 2, 1960	198.06
Mar. 2, 1955	198.47	June 5	198.68	Dec. 20	198.74	Nov. 10	198.04
Sept. 29	198.32	July 17	198.73	Feb. 3, 1958	198.70		

g Measurement made by Cyril Williams, Jr., consulting engineer.

## Fremont Valley--Koehn Lake

30/39-8A1. Owner unknown. East of Koehn Lake. Drilled unused water-table well in alluvium of Pleistocene age, diam 12 in., depth 268 ft, cased with steel. Lsd about 2,075 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 136.55 below lsd, Mar. 2, 1955; lowest 140.20 below lsd, Nov. 10, 1960. Records available: 1953-60.

Apr. 30, 1953	136.64	Nov. 15, 1955	136.74	Mar. 6, 1957	138.13	Mar. 10, 1959	137.72
Mar. 17, 1954	136.89	Mar. 20, 1956	136.83	Nov. 22	138.40	Dec. 2	138.28
Dec. 3	136.70	Oct. 11	138.01	Feb. 12, 1958	137.91	Feb. 26, 1960	140.06
Mar. 2, 1955	136.55	Nov. 28	138.15	Nov. 4	137.05	Nov. 10	140.20

31/37-35N1. M. & R. Conklin Ranch. North of California City. Drilled unused water-table well in alluvium of Pleistocene age, diam 16 in., depth about 439 ft, cased with steel. Lsd about 2,320 ft above msl. MP hole in casing cover, 0.10 ft below lsd. Highest water level 230.89 below lsd, Jan. 22, 1953; lowest 247.92 below lsd, Dec. 2, 1959. Records available: 1953, 1958-60. No measurement made 1954-57.

Jan. 22, 1953	230.89	Mar. 4, 1958	243.72	Mar. 10, 1959	246.04	Mar. 2, 1960	247.38
Jan. 30, 1958	244.08	Nov. 5	245.82	Dec. 2	247.92	Nov. 10	247.60

Lake County

## Lower Lake-Middletown Area

11/6-19G1. Roy Trimble. La-Z-2 Ranch. Northeast of Middletown in Coyote Valley. Drilled domestic water-table well in alluvium of Quaternary age, diam 8 in., depth 50 ft. Lsd 960 ft above msl. MP top south side of casing, 0.90 ft above lsd. Highest water level 7.6 be low lsd, Feb. 15, 1960; lowest 16.6 below lsd, Oct. 11, 1950. Records available: 1950-54, 1956-60. No measurement made in 1955.

July 13, 1950	12.8	Oct. 21, 1953	15.5	May 12, 1959	11.7	Mar. 3, 1960	10.1
Aug. 19	13.9	Apr. 14, 1954	10.3	June 4	12.1	Apr. 6	10.2
22	14.6	Apr. 4, 1956	11.9	July 9	13.3	May 6	11.1
Oct. 11	16.6	Mar. 12, 1957	10.0	Aug. 12	15.2	June 2	11.3
Nov. 6	12.3	Oct. 3, 1958	14.0	Sept. 3	16.1	July 7	12.6
Dec. 26	9.8	29	13.7	Oct. 26	12.7	Aug. 4	14.4
Apr. 26, 1951	11.9	Dec. 3	13.9	Nov. 16	12.4	Sept. 8	16.4
Oct. 10	15.8	Jan. 8, 1959	10.6	Dec. 14	12.1	Oct. 7	16.5
Mar. 26, 1952	9.4	Feb. 3	10.7	Jan. 25, 1960	9.5	Nov. 4	15.7
Nov. 19	13.6	Mar. 5	10.1	Feb. 15	7.6	Dec. 9	10.5
Apr. 23, 1953	11.9	Apr. 7	11.2				

13/7-15Q1. F. Bartrum. Northeast of Clearlake Highlands. Burns Valley. Drilled unused water-table well in Cache Formation of Anderson (1936), diam 12 in., depth 172 ft. Lsd 1,385 ft above msl. MP top east side of casing, 1.00 ft above lsd. Highest water level 0.3 below lsd, Mar. 26, 1952; lowest 12.4 below lsd, Oct. 11, 1950. Records available: 1949-54, 1956-60. No measurement made in 1955.

Dec. 2, 1949	6.0	Apr. 23, 1953	1.4	Apr. 7, 1959	1.4	Mar. 3, 1960	3.1
June 13, 1950	7.6	Oct. 14	1.5	May 12	1.9	Apr. 6	2.5
Aug. 9	10.9	Apr. 14, 1954	1.5	June 4	2.7	May 6	2.8
23	11.5	Apr. 3, 1956	.9	July 9	4.4	June 2	3.4
Oct. 11	12.4	Mar. 11, 1957	4.8	Aug. 12	5.9	July 7	4.9
Nov. 7	11.8	Oct. 3, 1958	5.3	Sept. 3	3.5	Aug. 4	5.9
Dec. 25	4.6	29	4.4	Oct. 26	7.4	Sept. 8	7.0
Apr. 27, 1951	3.2	Dec. 3	6.2	Nov. 16	7.5	Oct. 7	7.5
Oct. 10	11.6	Jan. 8, 1959	5.6	Dec. 14	7.6	Nov. 4	7.9
Mar. 26, 1952	.3	Feb. 3	3.8	Jan. 25, 1960	6.7	Dec. 9	6.1
Nov. 19	9.2	Mar. 5	1.6	Feb. 15	4.0		

Los Angeles County

## Antelope Valley

5/10-6N1. Little Rock Irrigation District. Near Little Rock. Drilled unused water-table well in alluvium, diam 14 in, depth 250+ ft, cased with steel. Lsd 2, 777.2 ft above msl. MP top of access pipe, 0.20 ft above lsd. Highest water level 85.0 below lsd, Mar. 2, 1945; lowest 147.30 below lsd, July 17, 1956. Records available: 1938, 1940-60. Records furnished by Los Angeles County Flood Control District.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11, 1956	129.2	Apr. 8, 1957	119.5	July 7, 1958	117.6	Oct. 6, 1959	115.5
Feb. 7	130.7	May 13	120.5	Aug. 5	119.5	Nov. 10	116.6
Mar. 13	129.1	June 3	121.4	Sept. 2	119.6	Dec. 8	115.1
Apr. 3	129.0	July 9	127.37	Oct. 7	111.1	Jan. 5, 1960	113.8
May 1	123.65	31	125.9	Nov. 5	117.3	Feb. 9	112.7
June 6	131.05	Sept. 3	126.2	Dec. 2	114.0	Mar. 1	112.6
July 17	147.30	Oct. 8	122.8	Jan. 12, 1959	112.8	Apr. 5	117.1
Aug. 13	133.00	28	121.2	Feb. 3	112.5	May 3	116.6
Sept. 11	127.65	Dec. 3	119.4	Mar. 3	111.8	31	118.5
Oct. 2	125.25	Jan. 7, 1958	118.3	Apr. 7	115.2	June 28	112.7
Nov. 5	123.50	Feb. 17	117.2	May 5	118.5	Aug. 2	124.3
26	122.20	Mar. 4	116.7	June 2	114.7	Sept. 7	122.9
Jan. 8, 1957	120.6	Apr. 22	116.7	July 7	119.8	Oct. 4	126.4
Feb. 5	119.7	May 6	116.4	Aug. 4	120.8	Nov. 1	121.95
Mar. 5	118.6	June 10	115.9	Sept. 8	118.5	23	119.9

6/10-9Q1. Rhodes-Cogburn. Formerly Henry Winters. Near Alpine Butte. Drilled irrigation and domestic water-table well in alluvium, diam 16 in, reported depth 275 ft, cased with steel. Lsd about 2, 596 ft above msl. MP hole in casing under pumpbase at top concrete block, 2.50 ft above lsd. Highest water level 142.1 below lsd, Dec. 2, 1941; lowest 164.5 below lsd, Nov. 22, 1960. Records available: 1940-48, 1950-60. Records furnished by Los Angeles County Flood Control District. Nov. 27, 1956, 159.9; Oct. 30, 1957, 160.9; Nov. 14, 1958, 162.0; Oct. 23, 1959, 161.2; Nov. 22, 1960, 164.5.

7/12-15F2. Los Angeles County Water District, well 4. Tenth and Date Sts., Lancaster. Drilled public-supply water-table well in alluvium, diam 16 to 12 in, reported depth 600 ft, cased, 16-in to 244, 12-in to 372. Lsd 2, 354 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 42.9 below lsd, Feb. 28, 1945; lowest 124.4 below lsd, Oct. 26, 1959. Records available: 1943-45, 1947-55, 1957-60. No measurement made in 1956. Records furnished by Los Angeles County Flood Control District. Mar. 8, 1957, 102.03; Nov. 12, 108.99; Mar. 10, 1958, 105.46; Nov. 4, 118.58; Oct. 26, 1959, 124.4; Nov. 28, 1960, 121.7.

8/10-19Q1. Union Trust & Savings Bank. East of Redman School. Drilled unused water-table well in alluvium, diam 12 in, reported depth 750 ft, cased with steel. Lsd about 2, 342 ft above msl. MP top of casing, 0.36 ft above lsd. Highest water level 29.7 below lsd, Apr. 9, 1941; lowest 147.5 below lsd, July 16, 1957. Records available: 1939-42, 1944-48, 1950-60.

Mar. 7, 1956	104.4	June 6, 1957	138.80	Mar. 11, 1958	91.88	Mar. 12, 1959	93.56
Oct. 23	105.7	July 16	147.56	Apr. 10	90.92	Dec. 8	102.49
Feb. 28, 1957	103.38	Sept. 25	141.53	May 15	93.58	Mar. 4, 1960	101.77
Apr. 30	138.22	Oct. 23	121.47	Nov. 6	104.51	Nov. 15	106.43

8/15-33G1. J. Alesso. Near Fairmont. Drilled domestic water-table well in alluvium, diam 12 in, depth 282 ft, cased with steel. Lsd about 2, 930 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 194.0 below lsd, Jan. 23, 1946; lowest 269.2 below lsd, Oct. 28, 1960. Records available: 1946-60. Records furnished by California State Division of Water Resources.

Mar. 8, 1956	238.7	Nov. 12, 1957	266	Nov. 26, 1958	261.0	Mar. 9, 1960	249.3
Nov. 26	240.5	Mar. 13, 1958	262.1	Mar. 18, 1959	262.0	Oct. 28	269.2

## San Gabriel River Basin

18/10-18. Baldwin Park. Drilled observation water-table well tapping fine sand to coarse gravel in alluvial deposits, diam 16 in, depth 200 ft, perforated 74-174. Lsd 387 ft above msl. Highest water level 56.0 below lsd, May 19, 1916; lowest 150.82 below lsd, Oct. 31, 1960. Records available: 1903-60.

## Mean water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	137.14	136.57	135.51	135.76	135.28	135.85	137.87	140.12	141.66	142.81	142.23	142.30
10	137.05	136.37	135.53	135.83	135.35	136.09	138.25	140.41	141.89	142.56	142.42	142.15
15	136.99	136.08	135.59	135.63	135.32	136.44	138.65	140.70	142.21	142.42	142.40	142.10
20	137.04	135.89	135.67	135.45	135.61	136.70	139.05	140.96	142.48	142.31	142.38	142.09
25	137.03	135.71	135.77	135.46	135.63	137.02	139.43	141.28	142.69	142.24	142.33	142.06
<b>Emm</b>	<b>136.81</b>	<b>135.59</b>	<b>135.83</b>	<b>135.33</b>	<b>135.64</b>	<b>137.50</b>	<b>139.82</b>	<b>141.51</b>	<b>142.88</b>	<b>142.20</b>	<b>142.30</b>	<b>142.03</b>

18/10-18--Continued.

1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	141. 93	140. 98	140. 69	140. 42	138. 88	138. 63	141. 26	144. 15	146. 40	147. 82	147. 68	147. 71
10	141. 76	140. 91	140. 63	140. 34	138. 69	138. 96	141. 89	144. 55	146. 87	148. 00	147. 59	147. 58
15	141. 57	140. 89	140. 57	140. 16	138. 43	139. 07	142. 37	144. 92	146. 88	147. 97	147. 48	147. 52
20	141. 39	140. 85	140. 48	139. 90	138. 23	139. 60	142. 86	145. 85	147. 09	147. 88	147. 42	147. 38
25	141. 25	140. 81	140. 42	139. 50	138. 11	140. 19	143. 24	145. 74	147. 35	147. 78	147. 56	147. 26
Eom	141. 10	140. 77	140. 40	139. 13	138. 29	140. 66	143. 68	146. 11	147. 62	147. 78	147. 62	147. 13

1958

5	147. 05	146. 17	139. 42	127. 19	109. 37	105. 77	103. 93	109. 05	109. 92	113. 08	115. 37	116. 81
10	147. 01	145. 83	137. 57	125. 17	108. 56	150. 12	104. 79	109. 71	110. 36	113. 48	115. 63	117. 08
15	146. 88	145. 40	135. 95	121. 58	107. 87	104. 43	105. 68	110. 33	110. 81	113. 92	115. 79	117. 38
20	146. 82	144. 54	134. 42	116. 68	107. 31	103. 84	106. 62	110. 70	111. 46	114. 51	116. 04	117. 67
25	146. 69	142. 70	132. 40	112. 89	106. 79	103. 26	107. 39	110. 57	111. 93	114. 90	116. 28	117. 94
Eom	146. 41	141. 42	129. 36	110. 63	106. 31	103. 37	108. 32	110. 03	112. 44	115. 13	116. 57	118. 17

1959

5	118. 35	119. 25	118. 07	118. 32	120. 33	122. 58	125. 81	129. 63	132. 63	134. 37	135. 54	136. 59
10	118. 48	119. 33	117. 48	118. 65	120. 65	123. 02	126. 48	130. 20	133. 04	134. 65	135. 71	136. 67
15	118. 61	119. 31	117. 28	119. 13	121. 00	123. 52	127. 21	130. 75	133. 44	134. 90	135. 90	136. 66
20	118. 76	119. 23	117. 42	119. 47	121. 31	124. 17	127. 81	131. 16	133. 66	135. 16	136. 03	136. 74
25	118. 98	118. 98	117. 77	119. 81	121. 68	124. 73	128. 35	131. 66	133. 90	135. 37	136. 21	136. 67
Eom	119. 14	118. 63	118. 00	120. 06	122. 01	125. 20	128. 91	132. 10	134. 10	135. 46	136. 39	136. 54

1960

5	136. 55	136. 09	135. 96	136. 84	138. 05	139. 86	142. 54	145. 87	148. 18	150. 02	150. 89	150. 41
10	136. 45	135. 93	135. 95	137. 14	138. 26	140. 11	143. 01	146. 28	148. 54	150. 32	150. 76	150. 36
15	136. 35	135. 92	136. 08	137. 34	138. 59	140. 46	143. 49	146. 69	148. 99	150. 37	150. 66	150. 34
20	136. 26	135. 96	136. 35	137. 68	138. 81	140. 86	144. 10	147. 10	149. 26	150. 49	150. 62	150. 33
25	136. 20	135. 95	136. 51	137. 91	139. 14	141. 44	144. 71	147. 46	149. 51	150. 72	150. 60	150. 37
Eom	136. 15	135. 96	136. 56	138. 02	139. 54	141. 99	145. 24	147. 78	149. 80	150. 82	150. 51	150. 33

## Coastal Plain

3S/12-8L3. Los Angeles County Farm. Near Downey. Drilled unused artesian well in Gaspar water-bearing zone of Recent age and underlying deposits of Pleistocene age, diam 8 in, depth 248 ft, cased with steel. Lsd about 92 ft above msl. MP hole in recorder floor, top of platform over well, 5.00 ft below lsd. Highest water level 14.45 below lsd, Mar. 20, 1930; lowest 80.50 below lsd, July 25, 1960. Records available: 1930-60. Records furnished by San Gabriel Valley Protective Association.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30, 1956	62. 69	Apr. 29, 1957	69. 63	July 7, 1958	78. 58	Oct. 26, 1959	77. 41
Feb. 27	62. 62	May 27	69. 72	Aug. 4	76. 01	Nov. 30	77. 35
Mar. 26	65. 80	June 3	71. 35	Sept. 1	75. 39	Dec. 21	76. 53
Apr. 30	64. 11	July 1	73. 35	Oct. 6	77. 35	Jan. 25, 1960	75. 48
May 28	66. 20	Aug. 5	74. 44	Nov. 3	75. 79	Feb. 29	75. 17
June 25	67. 47	Sept. 2	73. 74	Dec. 1	75. 07	Mar. 28	76. 40
July 30	69. 74	Oct. 7	73. 52	Jan. 26, 1959	74. 20	Apr. 25	77. 68
Aug. 27	69. 75	Nov. 4	71. 84	Feb. 23	73. 58	May 30	78. 13
Sept. 24	69. 75	Dec. 2	71. 84	Mar. 23	74. 79	June 27	79. 06
Oct. 29	68. 19	Jan. 6, 1958	71. 39	Apr. 27	75. 33	July 25	80. 50
Nov. 26	68. 84	Feb. 3	70. 95	May 25	76. 64	Aug. 29	80. 30
Dec. 31	68. 38	Mar. 3	71. 59	June 29	77. 02	Sept. 26	80. 47
Jan. 7, 1957	67. 83	Apr. 7	70. 37	July 27	78. 14	Oct. 31	80. 10
28	67. 10	May 5	72. 89	Aug. 31	78. 18	Nov. 28	78. 83
Feb. 25	67. 59	June 2	74. 70	Sept. 28	77. 58	Dec. 26	78. 57
Mar. 25	68. 60						

3S/14-21B1. Southern California Water Co. Rosecrans plant well 2 (previously reported well 1). Near Hawthorne. Drilled public-supply artesian well in sand and gravel deposits of Pleistocene age, diam 16 in, depth 500 ft, cased with steel. Lsd about 63 ft above msl. Highest water level 66 below lsd, May 1, 1931; lowest 134 below lsd, Oct. 7, Nov. 7, Dec. 7, Dec. 28, 1958, Jan. 7, 1959. Records available: 1931-37, 1939-60. Records furnished by Southern California Water Co.

Jan. 1956	j115	Oct. 1956	j120	June 7, 1957	j121	Jan. 7, 1959	j134
Feb.	j116	Nov.	j119	July 7	j125	Feb. 7	j120
Mar.	j118	Dec. 7	j118	Aug. 7	j126	Mar. 7	j120
Apr.	j122	28	j118	Aug. 7, 1958	j126	May 7	j130
May	j123	Jan. 7, 1957	j118	Sept. 7	j132	June 7	j131
June	j120	Feb. 7	j118	Oct. 7	j134	July 7	j130
July	j121	Mar. 7	j119	Nov. 7	j134	Aug. 7	j130
Aug.	j121	Apr. 7	j119	Dec. 7	j134	Sept. 7	j129
Sept.	j121	May 7	j119	28	j134	Oct. 7	j129

## 3S/14-21B1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 7, 1959	j124	Mar. 7, 1960	j115	July 7, 1960	j127	Oct. 7, 1960	j126
Dec. 7	j122	Apr. 7	j122	Aug. 7	j129	Nov. 7	j123
Jan. 7, 1960	j118	May 7	j123	Sept. 7	j127	Dec. 7	j120
Feb. 7	j118	June 7	j124				

j Water level below sea level.

4S/11-5D1. V. Capovilla. Near Norwalk. Drilled domestic artesian well in deposits of Pleistocene age, diam 10 in, depth 270 ft, cased with steel. Lsd 44.70 ft above msl. MP hole in pumpbase, 0.54 ft above lsd. Highest water level 3.41 below lsd, Mar. 17, 1933; lowest 86.37 below lsd, Aug. 25, 1959. Records available: 1930-60. Records furnished by Orange County Flood Control District.

Jan. 20, 1956	j53.94	Jan. 25, 1957	j58.76	Aug. 26, 1958	j80.04	Jan. 28, 1960	j59.24
Feb. 23	j45.41	Feb. 26	j55.04	Sept. 25	j76.02	Mar. 29	j65.83
Mar. 27	j60.96	Mar. 28	j61.64	Oct. 30	j70.65	Apr. 28	j73.61
Apr. 27	j55.35	Apr. 23	j65.24	Apr. 28, 1959	j73.07	May 24	j76.21
May 29	j59.83	May 28	j72.58	Aug. 25	j86.37	June 28	j81.65
June 28	j72.44	June 25	j81.53	Sept. 22	j78.04	Aug. 29	j86.83
Oct. 23	j73.04	Sept. 24	j80.98	Oct. 22	j75.95	Sept. 22	j81.89
Nov. 23	j69.73	Apr. 25, 1958	j57.48	Nov. 24	j72.26	Dec. 12	j66.64
Dec. 27	j68.85	June 24	j78.26	Dec. 29	j68.15		

b Well pumped recently.

j Water level below sea level.

4S/13-14L1. Southern California Edison Co., Ltd. Long Beach. Drilled unused artesian well in Gaspur water-bearing zone of Recent age, diam 10 in, depth 114 ft, perforated 90-114. Lsd 28.55 ft above msl. MP top of platform, 2.21 ft above lsd. Highest water level 20.62 below lsd, Apr. 5, 1941; lowest 54.46 below lsd, Dec. 26, 1960. Records available: 1930-60. Records furnished by city of Long Beach.

Jan. 30, 1956	j42.06	May 27, 1957	j45.62	Aug. 25, 1958	j48.04	Nov. 30, 1959	j52.16
Mar. 19	j42.19	June 24	j45.57	Sept. 29	j48.26	Dec. 28	j52.14
Apr. 9	j42.75	July 29	j46.09	Oct. 27	j48.41	Jan. 25, 1960	j52.05
May 7	j42.43	Aug. 26	j46.09	Nov. 24	j48.49	Feb. 29	j52.53
June 4	j42.75	Sept. 30	j46.59	Dec. 29	j48.86	Mar. 28	j52.69
July 2	j42.89	Oct. 28	j46.79	Jan. 26, 1959	j48.89	Apr. 25	j52.82
Aug. 6	j43.56	Nov. 25	j46.82	Feb. 23	j49.04	May 30	j52.65
Sept. 3	j43.74	Dec. 30	j46.97	Mar. 30	j51.39	June 27	j53.19
Oct. 1	j44.02	Jan. 27, 1958	j47.15	Apr. 27	j51.09	July 25	j53.10
Nov. 5	j44.40	Feb. 24	j47.25	May 25	j50.49	Aug. 29	j53.83
Dec. 3	j44.53	Mar. 24	j47.38	June 29	j51.64	Sept. 26	j53.64
Jan. 28, 1957	j44.71	Apr. 28	j47.29	July 27	j51.55	Oct. 31	j53.99
Feb. 25	j44.64	May 26	j47.49	Aug. 31	j51.44	Nov. 28	j54.37
Mar. 25	j44.62	June 30	j47.69	Sept. 28	j51.29	Dec. 26	j54.46
Apr. 29	j45.29	July 28	j48.02	Oct. 26	j51.24		

j Water level below sea level.

4S/13-23G2. City of Long Beach. Drilled unused artesian well in Silverado Formation of Pleistocene age, diam 26 to 16 in, depth 1,074 ft, perforated 650-900. Lsd 23.23 ft above msl (previously reported 24.50 ft above msl). MP hole in pumpbase, 1.30 ft above lsd. Highest water level 52.93 below lsd, Feb. 6, 1939; lowest 131.75 below lsd, Jan. 20, 1953. Records available: 1932-60. Records furnished by city of Long Beach.

Jan. 30, 1956	j104.80	Apr. 29, 1957	j102.50	July 28, 1958	j116.25	Oct. 26, 1959	j112.40
Feb. 27	j102.85	May 27	j109.10	Aug. 25	j115.05	Nov. 30	j111.80
Mar. 26	j105.67	June 24	j116.02	Sept. 29	j115.30	Dec. 28	j108.90
Apr. 30	j102.02	July 29	j113.20	Oct. 27	j112.25	Jan. 25, 1960	j104.10
May 28	j111.45	Aug. 26	j118.48	Nov. 24	j113.40	Feb. 29	j105.62
June 26	j114.06	Sept. 30	j115.10	Dec. 29	j107.30	Mar. 28	j105.25
July 30	j115.27	Oct. 28	j109.40	Jan. 26, 1959	j103.72	Apr. 25	j107.50
Aug. 27	j118.95	Nov. 25	j105.60	Feb. 23	j99.30	May 30	j115.97
Sept. 24	j116.66	Dec. 30	j99.37	Mar. 30	j104.70	June 27	j115.40
Oct. 29	j115.10	Jan. 27, 1958	j98.40	Apr. 27	j107.20	July 25	j117.10
Nov. 26	j112.85	Feb. 24	j99.95	May 25	j110.75	Aug. 29	j116.49
Dec. 31	j106.85	Mar. 31	j103.8	June 29	j116.05	Sept. 26	j117.70
Jan. 28, 1957	j102.35	Apr. 28	j111.20	July 27	j116.00	Oct. 31	j114.32
Feb. 25	j101.65	May	j110.10	Aug. 31	j119.42	Nov. 28	j106.94
Mar. 25	j100.85	June 30	j116.50	Sept. 28	j117.00	Dec. 26	j109.88

j Water level below sea level.

Mendocino County

## Sanel Valley

13/11-19P1. Charles Ashurst. About 0.4 mi south of Hopland. Dug and drilled irrigation water-table well in alluvium of Recent age, size 4 x 5 ft, depth 44 ft, 12-in casing to 44, perforated 24-44. Lsd 488 ft above msl. MP top of plank cover at intake, 0.50 ft above lsd. Highest water level 1.3 below lsd, Feb. 9, 1960; lowest 21.0 below lsd, Oct. 2, 1958. Records available: 1953-55, 1958-60. No measurement made 1956-57.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 27, 1953	17.7	Jan. 7, 1959	12.6	Sept. 2, 1959	18.5	May 6, 1960	8.9
May 20, 1954	8.8	Feb. 3	8.4	Oct. 10	18.4	June 2	9.3
Aug. 11	16.5	Mar. 5	7.6	Nov. 7	18.1	July 7	13.3
Oct. 29	17.4	Apr. 7	8.3	Dec. 5	17.9	Aug. 4	(a)
Mar. 29, 1955	8.9	May 12	11.2	Jan. 9, 1960	18.4	Sept. 7	17.7
Oct. 2, 1958	21.0	June 4	12.9	Feb. 9	1.3	Oct. 7	18.4
28	18.2	July 9	15.7	Mar. 3	8.7	Nov. 4	18.1
Dec. 2	18.6	Aug. 11	18.1	Apr. 6	8.5	Dec. 9	8.8

a Well being pumped.

13/11-20G1. I. Bliss. 0.5 mi east of East Hopland. Drilled domestic well in alluvium of Recent age, diam 6 in, depth 135 ft. Lsd 515 ft above msl. MP top north side of casing, 2.00 ft above lsd. Highest water level 2.3 below lsd, Feb. 9, 1960; lowest 21.2 below lsd, Oct. 2, 1958. Records available: 1953-55, 1958-60. No measurement made 1956-57.

June 18, 1953	5.9	Dec. 2, 1958	13.3	Sept. 2, 1959	12.5	May 6, 1960	4.5
Oct. 27	12.3	Jan. 7, 1959	5.8	Oct. 10	12.3	June 2	4.4
Apr. 11, 1954	4.6	Feb. 3	3.8	Nov. 7	13.0	July 7	7.6
May 20	5.1	Mar. 5	3.9	Dec. 5	16.6	Aug. 4	10.6
Aug. 11	10.5	Apr. 7	3.8	Jan. 9, 1960	14.2	Sept. 8	12.4
Oct. 29	13.6	May 12	4.8	Feb. 8	2.3	Oct. 7	12.9
Mar. 29, 1955	5.2	June 4	6.6	Mar. 3	3.9	Nov. 4	19.2
Oct. 2, 1958	21.2	July 9	9.0	Apr. 6	4.3	Dec. 9	5.1
28	14.0	Aug. 11	12.1				

## Ukiah Area

15/12-8L1. Arnold Bogner. About 1 mi north of Ukiah. Drilled domestic water-table well in terrace deposits of Recent age, diam 12 in, depth 62 ft. Lsd 665 ft above msl. MP top east side of casing, 1.00 ft above lsd. Highest water level 14.6 below lsd, Mar. 5, 1959, Mar. 3, 1960; lowest 30.6 below lsd, Dec. 5, 1959. Records available: 1951-55, 1958-60. No measurement made 1956-57.

June 12, 1951	20.8	Aug. 11, 1954	24.6	May 12, 1959	20.8	Mar. 3, 1960	14.6
Oct. 17	28.8	Oct. 28	a44.0	June 4	22.4	Apr. 6	14.9
Dec. 5	18.8	Mar. 29, 1955	20.5	July 9	25.3	May 6	19.3
Apr. 3, 1952	14.7	Oct. 3, 1958	26.9	Aug. 12	a35.1	June 2	a24.4
Nov. 19	30.4	29	27.7	Sept. 2	28.0	July 7	23.0
Apr. 24, 1953	18.6	Dec. 2	28.5	Oct. 10	29.0	Aug. 4	a31.2
Oct. 22	30.5	Jan. 8, 1959	27.5	Nov. 7	30.5	Sept. 8	a27.1
Apr. 1, 1954	14.8	Feb. 3	15.5	Dec. 5	30.6	Oct. 7	28.9
May 20	a38.1	Mar. 5	14.6	Jan. 9, 1960	b30.2	Nov. 4	29.7
June 24	29.2	Apr. 7	17.1	Feb. 10	17.7	Dec. 9	21.6

a Well being pumped.

b Well pumped recently.

## Potter Valley

17/11-29P1. Harrison. About 2 mi south of Potter Valley. Drilled stock water-table well in Pliocene gravels, diam 8 in, depth 104 ft, perforated 21-24, 41-43, 89-100. Lsd 940 ft above msl. MP top west side of casing, 1.00 ft above lsd. Highest water level 18.2 below lsd, Feb. 19, 1959; lowest 27.5 below lsd, Aug. 24, 1959. Records available: 1951-55, 1958-60. No measurement made 1956-57. Measurement discontinued.

June 12, 1951	21.9	Oct. 28, 1954	20.2	June 22, 1959	22.0	Apr. 25, 1960	20.0
Oct. 17	26.0	Mar. 30, 1955	a19.44	July 20	23.9	May 23	20.4
Dec. 5	18.6	Oct. 13, 1958	19.8	Aug. 24	27.5	June 20	20.8
Apr. 3, 1952	18.3	Nov. 17	22.0	Sept. 22	20.1	July 18	22.8
Nov. 19	21.2	Dec. 15	20.5	Oct. 26	21.7	Aug. 22	b42.5
Apr. 24, 1953	19.9	Jan. 19, 1959	19.0	Nov. 16	21.6	Sept. 19	(a)
Oct. 21	20.2	Feb. 19	18.2	Dec. 15	21.5	Oct. 24	22.6
Mar. 31, 1954	18.7	Mar. 17	20.6	Jan. 25, 1960	21.2	Nov. 14	22.1
May 20	19.2	Apr. 21	19.8	Feb. 15	19.2	Dec. 27	19.9
Aug. 11	a40.9	May 18	20.9	Mar. 28	19.4		

a Well being pumped.

b Well pumped recently.

## Little Lake Valley

18/13-18E1. Northwestern Pacific RR. Willits. Drilled unused artesian well in alluvium of Recent age and continental deposits of Pliocene and Pleistocene age, diam 12 in, depth 493 ft. Lsd 1,350 ft above msl. MP center of well cap, 1.60 ft above lsd. Highest water level 25.7 below lsd, Mar. 17, Apr. 21, 1959; lowest 37.6 below lsd, Oct. 24, 1960. Records available: 1958-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 15, 1958	28.9	July 20, 1959	29.6	Jan. 26, 1960	28.2	July 18, 1960	27.4
Jan. 19, 1959	26.3	Aug. 24	32.7	Feb. 16	27.2	Aug. 22	31.2
Feb. 19	26.2	Sept. 22	32.1	Mar. 28	26.2	Sept. 19	33.4
Mar. 17	25.7	Oct. 27	31.2	Apr. 25	26.0	Oct. 24	37.6
Apr. 21	25.7	Nov. 17	30.9	May 23	26.5	Nov. 14	30.6
May 18	26.2	Dec. 15	31.4	June 20	26.7	Dec. 27	27.9
June 22	26.9						

## Laytonville Area

21/14-30M1. Mary E. Tracy. About 2 mi south of Laytonville. Dug domestic and irrigation water-table well in alluvium of Recent age, size 5 x 5 ft to 19-ft depth, 2 ft to 29-ft depth. Lsd 1,688 ft above msl. MP top of pumphouse floor, 1.50 ft above lsd. Highest water level 3.4 below lsd, Mar. 31, 1954; lowest 20.0 below lsd, Aug. 25, 1959. Records available: 1952-55, 1958-60. No measurement made 1956-57.

Nov. 19, 1952	16.2	Oct. 13, 1958	15.9	July 20, 1959	14.6	Apr. 26, 1960	6.5
June 3, 1953	4.7	Nov. 18	16.1	Aug. 25	20.0	May 24	7.3
Oct. 23	15.3	Dec. 17	15.5	Sept. 22	16.7	June 21	9.7
Mar. 31, 1954	3.4	Jan. 19, 1959	6.6	Oct. 27	17.1	July 19	13.0
May 19	7.0	Feb. 19	3.5	Nov. 17	18.3	Aug. 22	15.2
July 16	b17.4	Mar. 17	5.4	Dec. 15	17.4	Sept. 19	a20.4
Sept. 24	16.8	Apr. 22	5.5	Jan. 26, 1960	12.7	Oct. 24	17.2
Mar. 29, 1955	5.0	May 18	8.5	Feb. 16	7.1	Nov. 14	17.3
May 14, 1958	8.6	June 23	12.0	Mar. 29	6.0	Dec. 27	7.8

a Well being pumped.

b Well pumped recently.

## Round Valley

22/12-4B1. C. Rohn. 2.5 mi east of Covelo. Drilled irrigation artesian well in alluvium of Recent age, diam 12 in, depth 200 ft. Lsd 1,351 ft above msl. MP top north side of casing, 1.00 ft above lsd. Highest water level 3.7 below lsd, Feb. 19, 1959; lowest 17.7 below lsd, Dec. 15, 1959. Records available: 1951-60.

May 18, 1951	5.9	June 24, 1954	7.4	Feb. 19, 1959	3.7	Feb. 16, 1960	5.3
Oct. 17	15.0	Aug. 12	10.4	Apr. 21	6.1	Mar. 29	5.6
Dec. 5	4.4	Sept. 23	12.8	May 18	7.2	Apr. 26	5.9
Apr. 3, 1952	4.7	Mar. 30, 1955	4.8	June 22	8.8	May 23	6.9
Oct. 29	15.4	Oct. 9, 1956	17.0	July 20	10.2	June 20	7.0
Nov. 20	15.9	Apr. 25, 1957	6.4	Aug. 25	13.0	July 19	8.6
Apr. 24, 1953	5.1	Oct. 16	7.7	Sept. 22	14.6	Aug. 22	5.6
May 19	4.9	Apr. 17, 1958	5.2	Oct. 27	16.6	Sept. 19	12.9
Oct. 22	12.7	Nov. 17	14.3	Nov. 17	17.1	Oct. 24	15.1
Mar. 20, 1954	4.5	Dec. 15	14.2	Dec. 15	17.7	Nov. 14	16.2
May 17	6.0	Jan. 19, 1959	6.2	Jan. 26, 1960	15.2	Dec. 27	5.5

## Napa County

## Napa Valley

4/4-13E1. G. Lawrence. About 6.5 mi south of Napa. Drilled stock water-table well in younger and older alluvium, diam 8 in, depth 98 ft. Lsd 41.57 ft above msl. MP top south side of casing, at lsd. Highest water level 10.1 below lsd, Mar. 28, 1952; lowest 17.0 below lsd, Oct. 9, 1950. Records available: 1930-32, 1949-60. No measurement made 1933-48.

Mar. 25, 1930	13.6	Nov. 22, 1931	14.7	June 6, 1950	13.8	Mar. 28, 1952	10.1
Oct. 28	14.1	Dec. 19	14.6	July 7	14.3	Nov. 18	13.0
Mar. 20, 1931	14.6	Jan. 22, 1932	13.8	Aug. 11	15.2	Apr. 13, 1953	11.3
Apr. 21	14.7	Feb. 26	13.9	Sept. 7	15.8	Oct. 27	12.5
May 21	16.1	Mar. 27	13.4	Oct. 9	17.0	Apr. 13, 1954	11.6
June 22	15.0	Dec. 21, 1949	15.5	Nov. 8	15.4	Mar. 28, 1955	11.4
July 23	15.3	Jan. 25, 1950	15.2	Feb. 28, 1951	13.9	Apr. 3, 1956	12.2
Aug. 21	15.7	Mar. 1	13.8	May 26	12.4	Mar. 13, 1957	13.6
Sept. 28	14.6	Apr. 4	13.3	Oct. 9	11.6	Sept. 30, 1958	14.7
Oct. 20	13.8	May 3	13.2	Dec. 7	12.8	Oct. 27	13.6

4/4-13E1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 1, 1958	13.4	July 7, 1959	14.3	Jan. 8, 1960	14.6	July 6, 1960	14.8
Jan. 6, 1959	13.6	Aug. 10	14.6	Feb. 8	14.1	Aug. 3	15.9
Feb. 2	13.3	Sept. 1	15.3	Mar. 2	13.7	Sept. 6	16.1
Mar. 4	12.5	Oct. 9	14.5	Apr. 5	13.3	Oct. 6	15.8
Apr. 6	12.4	Nov. 6	14.7	May 4	13.4	Nov. 3	15.3
May 11	13.1	Dec. 4	15.2	June 1	14.0	Dec. 8	15.2
June 2	13.1						

5/4-11M1. DeWitt Machine Shop, Napa. Drilled industrial water-table well in younger and older alluvium, diam 8 in., depth 77 ft. Lsd 13 ft above msl. MP top north side of casing, 0.30 ft above lsd. Highest water level 5.2 below lsd, Mar. 27, 1952; lowest 10.5 below lsd, Sept. 8, 1950. Records available: 1950-60.

Feb. 3, 1950	6.4	Jan. 5, 1952	5.4	Jan. 6, 1959	7.3	Jan. 8, 1960	8.7
Mar. 1	6.5	Mar. 27	5.2	Feb. 2	7.1	Mar. 2	7.6
Apr. 4	7.0	Nov. 18	9.2	Mar. 4	5.5	Apr. 5	7.1
May 3	8.0	Apr. 13, 1953	7.5	Apr. 6	7.4	May 4	7.6
June 6	8.8	Oct. 27	9.5	May 11	8.3	June 1	8.4
July 7	9.8	Apr. 2, 1954	6.2	June 2	8.8	July 6	9.3
Aug. 10	10.3	Mar. 28, 1955	8.1	July 7	9.2	Aug. 3	9.1
Sept. 8	10.5	Apr. 2, 1956	7.4	Aug. 10	9.1	Sept. 6	9.1
Oct. 9	10.3	Mar. 13, 1957	6.7	Sept. 1	9.4	Oct. 6	9.5
Nov. 8	9.4	Sept. 30, 1958	8.5	Oct. 9	8.6	Nov. 3	9.5
Dec. 28	5.4	Oct. 27	8.7	Nov. 6	8.4	Dec. 8	8.0
Dec. 7, 1951	6.5	Dec. 1	8.9	Dec. 4	9.2		

6/4-17A1. R. Ohlant, North of Napa. Drilled irrigation water-table well in younger and older alluvium, diam 12 in., depth 250 ft, cased to 250. Lsd 67 ft above msl. MP top south side of casing, 0.50 ft above lsd. Highest water level 0.7 below lsd, Mar. 27, 1952; lowest 23.7 below lsd, Oct. 6, 1960. Records available: 1949-60.

Oct. 13, 1949	17.2	Dec. 27, 1951	4.6	Sept. 30, 1958	13.8	Dec. 4, 1959	17.4
Nov. 1	16.8	Apr. 4, 1952	2.7	Oct. 27	13.0	Jan. 8, 1960	16.5
Dec. 1	16.2	May 24	4.9	Dec. 1	13.1	Feb. 8	13.5
28	15.3	Oct. 11	17.8	Jan. 6, 1959	13.3	Mar. 2	10.8
Jan. 25, 1950	11.8	Dec. 7	9.4	Feb. 2	10.8	Apr. 5	9.1
Mar. 1	8.4	Mar. 27, 1952	0.7	Mar. 4	6.1	May 4	9.3
Apr. 5	7.7	Nov. 28	13.7	Apr. 6	6.8	June 1	11.0
May 4	8.3	Apr. 13, 1953	4.5	June 2	14.4	July 6	(a)
June 4	13.7	Oct. 20	15.6	July 8	15.8	Aug. 3	20.3
July 8	14.1	Apr. 13, 1954	5.8	Aug. 10	16.6	Sept. 6	21.1
Aug. 10	16.5	Mar. 28, 1955	9.9	Sept. 1	19.1	Oct. 6	23.7
Sept. 8	18.0	Apr. 2, 1956	2.1	Oct. 9	16.2	Nov. 3	20.4
Oct. 9	20.2	Mar. 13, 1957	10.2	Nov. 6	16.1	Dec. 8	17.1
Nov. 8	15.6						

a Well being pumped.

7/5-16B2. W. E. Lawson, Northeast of Rutherford. Drilled unused water-table well in younger and older alluvium, diam 10 in., depth 232 ft. Lsd 155 ft above msl. MP top south side of casing, 0.50 ft above lsd. Highest water level 4.0 below lsd, Mar. 27, 1952; lowest 20.9 below lsd, July 8, 1959. Records available: 1949-53, 1955-60. No measurement made in 1954.

Oct. 21, 1949	14.0	Dec. 27, 1950	5.7	Oct. 27, 1958	14.2	Jan. 8, 1960	14.5
Nov. 1	13.8	Apr. 3, 1951	5.5	Dec. 1	13.6	Feb. 8	7.6
Dec. 1	13.3	May 24	6.9	Jan. 6, 1959	12.4	Mar. 2	7.5
Jan. 25, 1950	9.3	Oct. 11	13.1	Feb. 2	9.2	Apr. 5	6.4
Mar. 1	5.9	Dec. 7	8.3	Mar. 4	6.2	May 4	6.9
Apr. 5	6.0	Mar. 27, 1952	4.0	Apr. 6	7.9	June 1	c18.3
May 3	6.5	Nov. 18	13.6	June 2	14.6	July 6	c20.5
June 7	c22.0	Apr. 13, 1953	5.9	July 8	20.9	Aug. 3	c31.0
July 6	c23.3	Oct. 21	12.1	Aug. 10	19.9	Sept. 6	c27.5
Aug. 8	12.6	Mar. 28, 1955	6.9	Sept. 1	17.2	Oct. 6	17.6
Sept. 14	14.9	Apr. 2, 1956	4.7	Oct. 9	16.0	Nov. 3	16.5
Oct. 9	13.8	Mar. 12, 1957	7.3	Nov. 6	15.9	Dec. 8	14.2
Nov. 8	13.0	Sept. 30, 1958	16.7	Dec. 4	15.4		

c Nearby well being pumped.

8/6-10Q1. Marolf Bros., Southeast of Calistoga. Drilled stock and irrigation water-table well in younger and older alluvium, diam 10 in., depth 184 ft. Lsd 290 ft above msl. MP  $\frac{1}{2}$ -in hole in east side of pumpbase, 0.60 ft above lsd. Highest water level 0.8 below lsd, Mar. 26, 1952, Apr. 14, 1954; lowest 40.8 below lsd, Sept. 14, 1950. Records available: 1949-60.

8/6-10Q1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 30, 1949	10.4	Dec. 27, 1950	1.4	Sept. 30, 1958	6.5	Nov. 6, 1959	10.4
Nov. 2	17.0	Apr. 3, 1951	1.3	Oct. 27	6.8	Jan. 8, 1960	8.3
Dec. 1	11.5	May 24	2.6	Dec. 1	6.1	Feb. 8	1.2
Jan. 25, 1950	4.4	Oct. 11	a63.7	Jan. 6, 1959	5.0	Mar. 2	1.8
Mar. 1	1.3	Dec. 7	4.7	Feb. 2	2.6	Apr. 5	1.5
Apr. 5	1.4	Mar. 26, 1952	0.8	Mar. 4	1.8	May 4	2.3
May 3	2.0	Nov. 18	24.3	Apr. 6	2.0	June 1	3.7
June 21	6.8	Apr. 3, 1953	1.4	May 11	3.5	July 6	4.9
July 6	5.7	Oct. 21	18.5	June 2	4.4	Aug. 3	6.8
Aug. 9	a65.1	Apr. 14, 1954	0.8	July 8	6.9	Sept. 6	7.9
Sept. 14	40.8	Mar. 28, 1955	1.8	Aug. 10	9.1	Oct. 6	9.8
Oct. 9	a74.2	Apr. 2, 1956	2.5	Sept. 1	9.9	Nov. 4	10.1
Nov. 7	18.2	Mar. 12, 1957	1.0	Oct. 9	9.2	Dec. 8	9.0

a Well being pumped.

Orange County

## Coastal Plain

4S/10-22L2. Halderman & Callens. Near Anaheim. Drilled irrigation artesian and water-table well in sand and gravel of Pleistocene age, diam 16 in, depth 472 ft (previously reported 475 ft), perforated 140-158, 370-401, 410-457. Lsd 135.99 ft above msl. MP hole in pumpbase, 0.10 ft above lsd. Highest water level 97.16 below lsd, May 3, 1945; lowest 156.41 below lsd, Sept. 13, 1957. Records available: 1928-60. Measurements made by Orange County Flood Control District.

Jan. 10, 1956	j143.25	May 10, 1957	j150.62	Aug. 12, 1958	j147.90	Oct. 2, 1959	j150.29
Feb. 9	j142.55	June 11	j152.22	Sept. 12	j147.25	Nov. 12	j146.75
Mar. 8	j143.09	July 9	j153.41	Oct. 14	j145.88	Dec. 8	j145.14
Apr. 12	j145.24	Aug. 13	j153.87	31	j144.15	Jan. 12, 1960	j139.98
May 10	j142.40	Sept. 13	j156.41	Nov. 14	j141.31	Feb. 9	j138.49
June 20	j148.42	Oct. 11	j155.06	Dec. 11	j140.23	Mar. 10	j139.46
July 12	j152.73	Nov. 14	j144.42	Jan. 9, 1959	j138.21	Apr. 8	j141.02
Aug. 7	j153.44	Dec. 6	j143.39	Feb. 13	j138.68	May 13	j141.99
Oct. 9	j153.22	Jan. 14, 1958	j140.96	Mar. 10	j138.93	June 9	j143.18
Nov. 8	j153.98	Feb. 11	j140.28	Apr. 10	j142.48	July 12	j140.96
Dec. 11	j151.83	Mar. 13	j138.39	May 8	j144.98	Aug. 9	j142.98
Jan. 10, 1957	j148.90	Apr. 17	j136.30	June 9	j146.65	Sept. 8	j142.44
Feb. 7	j146.73	May 2	j136.51	July 14	j152.30	Oct. 13	j139.74
Mar. 12	j146.88	June 12	j141.93	Aug. 13	j154.08	Nov. 9	j135.28
Apr. 11	j150.99	July 15	j145.35	Sept. 8	j152.63	Dec. 8	j132.62

j Water level below sea level.

4S/11-19K1. Los Alamitos Sugar Co. Near Los Alamitos. Drilled unused artesian well in deposits of Pleistocene age, diam 12 in, depth 448 ft, perforated 440-460. Lsd 28.50 ft above msl. MP hole in recorder-shelter platform, 0.22 ft above lsd. Highest water level flowing, 1901; lowest 73.53 below lsd, July 22, 1957. Records available: 1901, 1903, 1929-60. Measurements made by city of Long Beach.

Jan. 30, 1956	j42.31	Apr. 29, 1957	j62.18	Sept. 29, 1958	j64.35	Nov. 30, 1959	j57.55
Feb. 27	j41.78	May 27	j65.00	Oct. 27	j63.48	Dec. 28	j50.28
Mar. 26	j50.88	June 24	j72.58	Nov. 24	j52.25	Jan. 25, 1960	j51.44
Apr. 30	j44.43	July 22	j73.53	Dec. 29	j50.97	Feb. 29	j47.00
May 28	j53.05	Oct. 28	j54.26	Jan. 26, 1959	j49.58	Mar. 28	j52.58
June 25	j59.87	Nov. 25	j50.10	Feb. 23	j43.85	Apr. 25	j64.20
July 30	j69.15	Dec. 30	j44.58	Mar. 30	j51.37	May 30	j70.48
Aug. 27	j69.18	Jan. 27, 1958	j50.26	Apr. 27	j60.38	June 27	j69.86
Sept. 24	j68.06	Feb. 24	j47.01	May 25	j65.81	July 25	j72.62
Oct. 29	j57.80	Mar. 24	j39.79	June 29	j66.98	Aug. 29	j72.92
Nov. 26	j57.71	Apr. 28	j42.61	July 27	j69.49	Sept. 26	j72.61
Dec. 31	j53.16	May 26	j55.33	Aug. 31	j72.59	Oct. 31	j62.91
Jan. 28, 1957	j47.75	June 30	j66.56	Sept. 28	j64.30	Nov. 28	j55.19
Feb. 25	j53.56	July 28	j67.69	Oct. 26	j58.43	Dec. 26	j52.70
Mar. 25	j55.35	Aug. 25	j67.22				

j Water level below sea level.

5S/12-12P1. U. S. Naval Ammunition and Net Depot. Near Seal Beach. Drilled unused artesian well in deposits of Pleistocene age, diam 12 in, depth 185 ft, cased with steel. Lsd 15.97 ft above msl. MP top of cover plate over casing, 0.82 ft above lsd. Highest water level 6.26 below lsd, Mar. 13, 1933; lowest 42.25 below lsd, Aug. 9, 1957. Records available: 1930-60. Records furnished by city of Long Beach.

5S/12-12P1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20, 1956	j34.18	Jan. 11, 1957	j36.40	May 23, 1958	j31.53	Sept. 18, 1959	j40.13
Feb. 9	j32.68	Feb. 21	j38.13	June 13	j33.88	Oct. 30	j37.95
Mar. 2	j33.16	Mar. 15	j38.40	July 25	j36.90	Nov. 20	j38.38
23	j35.50	Apr. 26	j38.48	Aug. 15	j37.18	Dec. 31	j36.25
Apr. 13	j37.08	May 17	j37.28	Sept. 26	j36.36	Jan. 27, 1960	j35.02
May 4	j32.91	June 28	j39.61	Oct. 17	j35.76	Feb. 11	j34.85
25	j32.26	July 19	j40.83	Nov. 28	j30.86	Mar. 25	j35.44
June 15	j33.86	Aug. 9	j42.25	Dec. 19	j33.60	Apr. 15	j36.36
July 6	j34.89	Sept. 13	j40.74	Jan. 30, 1959	j34.60	May 27	j37.26
27	j38.03	Oct. 25	j37.40	Feb. 20	j32.97	June 17	j38.08
Sept. 7	j38.74	Nov. 15	j36.42	Mar. 13	j34.01	July 29	j39.08
28	j38.65	Dec. 27	j34.31	April 24	j35.99	Aug. 19	j38.68
Oct. 19	j39.16	Jan. 17, 1958	j34.32	May 15	j36.57	Sept. 30	j39.68
Nov. 9	j36.48	Feb. 28	j32.96	June 26	j38.76	Oct. 21	j39.87
30	j37.06	Mar. 21	j30.78	July 17	j40.00	Dec. 2	j34.88
Dec. 21	j35.59	Apr. 11	j27.89	Aug. 28	j40.78	23	j33.99

j Water level below sea level.

6S/11-13G2. Surf Land & Water Co. East of Huntington Beach. Drilled unused artesian well in Talbert water-bearing zone, diam 12 in, depth 154 ft, cased with steel. Lsd 3.30 ft (previously reported 2.88 ft) above msl. MP top of recorder floor, 3.50 ft above lsd. Highest water level 1.65 above lsd, Apr. 21, 1941; lowest 17.09 below lsd, Feb. 21, 1951. Records available: 1930-60. Records furnished by Orange County Flood Control District.

Jan. 25, 1956	j11.98	Apr. 24, 1957	j12.06	July 30, 1958	j10.28	Oct. 28, 1959	j9.30
Feb. 29	j11.19	May 9	j11.83	Aug. 27	j11.10	Nov. 25	j8.96
Mar. 28	j11.86	June 26	j12.38	Sept. 24	j11.03	Dec. 30	j8.25
Apr. 25	j10.02	July 31	j12.34	Oct. 29	j10.87	Jan. 27, 1960	j8.01
May 30	j9.57	Aug. 28	j12.67	Nov. 26	j10.47	Feb. 24	j8.69
June 27	j10.98	Sept. 25	j12.31	Dec. 31	j10.00	Mar. 30	j8.92
July 25	j12.07	Oct. 30	j11.19	Jan. 21, 1959	j9.63	Apr. 27	j9.01
Aug. 29	j12.59	Nov. 27	j10.53	Feb. 25	j10.11	May 25	j8.51
Sept. 26	j12.38	Dec. 26	j9.64	Mar. 25	j8.71	June 29	j8.47
Oct. 31	j12.36	Jan. 29, 1958	j9.77	Apr. 29	j8.50	July 27	j9.07
Nov. 28	j11.51	Feb. 26	j9.44	May 27	j8.58	Aug. 31	j9.32
Dec. 26	j11.05	Mar. 26	j8.52	June 24	j8.99	Sept. 28	j9.41
Jan. 30, 1957	j10.35	Apr. 30	j8.53	July 29	j9.75	Oct. 26	j8.92
Feb. 20	j10.79	May 28	j7.14	Aug. 26	j10.10	Nov. 30	j7.89
Mar. 27	j12.31	June 25	j8.54	Sept. 30	j9.59	Dec. 28	j7.36

j Water level below sea level.

### Riverside County

#### San Jacinto Valley

5/2W-27E2. Fred Harvey, Winchester. Drilled domestic water-table well in alluvium, diam 9 in, depth unknown, cased with steel. Lsd about 1,477 ft above msl. MP top of 2-x 8-in plank, 0.80 ft above lsd. Highest water level 25.20 below lsd, Mar. 4, 1931; lowest 60.31 below lsd, Dec. 5, 1960. Records available: 1930-60. Records furnished by Riverside County Flood Control and Conservation District.

Jan. 5, 1956	49.37	Mar. 8, 1957	52.09	June 25, 1958	53.87	Nov. 12, 1959	55.97
Feb. 1	49.30	Apr. 18	52.48	Aug. 11	54.88	Dec. 4	56.34
21	49.54	June 4	52.19	Sept. 8	49.84	Jan. 8, 1960	58.20
Apr. 3	49.64	July 2	52.27	Nov. 13	a56.91	27	58.14
May 2	50.02	Aug. 1	52.64	Dec. 30	49.00	Feb. 25	56.23
June 6	50.12	Sept. 4	52.19	Mar. 4, 1959	48.99	48.80	Mar. 21
July 2	52.42	30	52.13	12	55.08	May 3	56.11
31	50.71	Dec. 4	53.68	May 6	51.51	June 2	57.10
Sept. 4	51.79	Jan. 3, 1958	53.90	June 5	54.95	July 5	57.14
Oct. 15	51.90	Feb. 4	52.88	29	55.15	Aug. 5	56.89
Dec. 5	52.04	Mar. 6	52.90	Aug. 12	55.58	Sept. 5	56.80
Jan. 2, 1957	52.39	Apr. 22	52.62	Sept. 10	55.86	Oct. 20	56.98
Feb. 1	52.68	May 27	52.93	Oct. 23	56.07	Dec. 5	60.31

a Well being pumped.

6/3-3H1. James Miner, Menifee Valley. Drilled irrigation water-table well in alluvium, diam and depth unknown, cased with steel. Lsd about 1,428 ft above msl. MP top of 1½-in pipe, flush with slab south of pumpbase, at lsd. Highest water level 126.60 below lsd, Apr. 17, 1958; lowest 157.59 below lsd, Dec. 5, 1960. Records available: 1958-60. Records furnished by Riverside County Flood Control and Conservation District.

6/3-3H1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3, 1958	135.18	Aug. 12, 1958	143.98	June 4, 1959	150.12	Jan. 28, 1960	153.00
Feb. 14	133.72	Dec. 13	154.40	Dec. 2	155.83	Feb. 25	153.97
Mar. 8	129.42	Mar. 4, 1959	144.22	Jan. 8, 1960	153.97	Dec. 5	157.59
Apr. 17	126.60	12	150.37				

4/3W-32E1. James Malcolm. Fourth and F Sts., Perris. Drilled water-table well in alluvium, diam 16 in, depth unknown. Lsd about 1,433 ft above msl. MP top of casing, 1.70 ft above lsd. Highest water level 62.45 below lsd, Apr. 26, 1948; lowest 89.90 below lsd, Mar. 12, 1959. Records available: 1929-43, 1945-60. Records furnished by Riverside County Flood Control and Water Conservation District.

Jan. 4, 1956	71.14	Apr. 15, 1957	71.92	Aug. 11, 1958	72.44	Nov. 5, 1959	75.26
31	71.15	June 6	72.02	Sept. 8	73.25	Dec. 2	77.60
Feb. 20	71.22	July 2	73.37	Nov. 10	72.33	Jan. 5, 1960	77.43
Apr. 3	71.38	Aug. 1	71.79	Dec. 18	73.17	26	75.80
May 1	71.38	Sept. 4	72.20	Jan. 30, 1959	75.79	Feb. 25	72.65
June 6	71.50	30	72.23	Mar. 4	88.17	Mar. 18	78.10
July 2	71.58	Dec. 5	72.13	12	89.90	May 5	78.29
31	71.64	Jan. 7, 1958	72.33	May 5	86.52	June 3	79.69
Sept. 4	74.46	Feb. 14	72.44	June 4	79.60	July 1	80.21
Oct. 15	71.65	Mar. 6	72.30	July 7	72.55	Aug. 4	80.80
Dec. 4	71.76	Apr. 17	72.52	Aug. 11	74.36	Sept. 5	80.27
Jan. 3, 1957	71.80	May 27	78.04	Sept. 4	75.88	Oct. 11	80.89
Feb. 1	71.79	June 25	72.70	Oct. 19	75.43	Dec. 6	80.30
Mar. 8	71.90						

San Bernardino County

## Chino Basin

18/5-22E1. Citizens' Land & Water Co. Bloomington. Drilled unused water-table well in alluvium of Pleistocene age, diam 14 in, depth 620 ft, cased with steel. Lsd 1,107.0 ft above msl. MP top of 2-in access pipe, 1.00 ft below lsd. Highest water level 236.8 below lsd, Oct. 7, 1927; lowest 275.00 below lsd, Dec. 9, 1959. Records available: 1927-60. Records furnished by San Bernardino County Flood Control District.

Mar. 2, 1956	264.96	Sept. 3, 1957	267.30	Aug. 12, 1958	264.4	May 5, 1959	272.20
Dec. 3	265.98	Oct. 1	267.69	Sept. 10	265.50	June 3	272.50
Jan. 3, 1957	265.05	Nov. 4	267.40	Oct. 3	272.95	30	272.90
Feb. 5	265.17	Dec. 4	268.49	Nov. 5	272.80	Aug. 4	274.10
Mar. 5	265.12	Jan. 2, 1958	269.28	Dec. 9	271.76	Sept. 2	274.10
Apr. 2	265.03	Mar. 3	269.18	Jan. 8, 1959	271.85	Oct. 7	273.90
May 2	265.41	Apr. 8	268.10	Feb. 6	271.60	Nov. 5	274.60
June 4	265.82	May 6	269.52	Mar. 6	271.90	Dec. 9	275.00
July 2	266.20	June 5	270.25	Apr. 3	272.10	Jan. 6, 1960	274.55
Aug. 2	266.81	July 1	273.68				

## Mojave River Basin

## Upper Basin

3/3W-6E2. Mike Spranger. Near Mojave River southeast of Hesperia. Drilled domestic water-table well in alluvium, diam 12 in, reported depth 61 ft, cased with steel. Lsd about 2,950 ft above msl. MP top of access pipe, 0.96 ft above lsd. Highest water level 3.95 below lsd, Mar. 24, 1958; lowest 57.27 below lsd, Nov. 26, 1951. Records available: 1948-60. Records furnished by San Bernardino County Flood Control District.

Mar. 6, 1956	g32.75	Nov. 5, 1957	g45.99	Nov. 4, 1958	g31.48	Nov. 4, 1959	g43.59
29	35.64	19	44.72	21	33.06	Mar. 1, 1960	g51.19
Dec. 18	53.07	Mar. 8, 1958	g4.35	Mar. 10, 1959	4.75	Nov. 8	g51.62
Apr. 30, 1957	27.76	24	3.95	May 7	22.90		

g Measurement made by U. S. Geol. Survey.

4/3W-18E1. Owner unknown. Near Mojave River east of Hesperia. Drilled irrigation water-table well in alluvium, diam 12 in, reported depth 100 ft, cased with steel. Lsd about 2,867 ft above msl. MP hole in pumpbase, 1.00 ft above lsd. Highest water level 14.36 below lsd, May 2, 1945; lowest 50.15 below lsd, Dec. 1, 1960. Records available: 1930-32, 1935, 1938-60. Records furnished by San Bernardino County Flood Control District.

4/3W-18E1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 29, 1956	42.78	Jan. 8, 1958	46.62	Feb. 5, 1959	39.32	Jan. 4, 1960	44.02
Nov. 5	45.14	Feb. 7	44.53	Mar. 5	39.15	Feb. 5	44.35
Dec. 5	45.28	Mar. 5	43.78	10	g39.09	Mar. 1	45.70
Jan. 2, 1957	45.24	9	g37.66	Apr. 5	41.48	1	g48.85
Feb. 6	44.98	24	36.79	May 7	40.36	3	g44.82
Mar. 6	45.68	May 1	27.01	June 4	40.91	May 2	45.58
Apr. 3	45.35	June 4	27.60	July 1	41.42	31	48.72
30	45.62	July 3	29.77	Aug. 3	42.01	July 6	46.76
June 3	45.76	Aug. 6	32.64	Sept. 1	42.70	Aug. 3	47.40
July 2	46.28	Sept. 5	34.63	Oct. 1	43.02	31	49.60
Aug. 1	46.93	Oct. 1	36.74	Nov. 3	43.54	Oct. 6	49.45
Sept. 29	47.13	Nov. 4	g37.13	4	g43.60	Nov. 3	49.90
Oct. 2	47.84	6	37.24	6	43.66	8	g48.37
Nov. 5	g47.18	21	37.63	Dec. 1	46.53	Dec. 1	50.15
19	47.34	Jan. 8, 1959	41.32				

g Measurement made by U. S. Geol. Survey.

5/3W-22A1. Curtis Marshall. Apple Valley southeast of Victorville. Drilled domestic and irrigation water-table well in alluvium, diam 12 in, depth 267 ft, cased with steel. Lsd about 2,924 ft above msl. MP top of 1 1/4-in pipe, 1.20 ft above lsd. Highest water level 88.87 below lsd, May 7, 1948; lowest 102.40 below lsd, Nov. 16, 1954. Records available: 1948-60. Records furnished by San Bernardino County Flood Control District.

Apr. 5, 1956	g95.60	Mar. 8, 1958	g97.84	Mar. 10, 1959	g126.99	Nov. 6, 1959	99.79
Apr. 1, 1957	g112.76	24	98.24	May 7	100.00	Mar. 1, 1960	g99.67
Nov. 1	98.47	Nov. 4	g98.73	Nov. 4	g99.35	Nov. 7	g100.44
5	g97.96	21	101.06				

a Well being pumped.

g Measurement made by U. S. Geol. Survey.

5/4W-11P1. Mr. Pratt. Near Victorville. Drilled domestic water-table well in alluvium, diam 8 in, reported depth 65 ft, cased with steel. Lsd about 2,786 ft above msl. MP top of casing, 1.60 ft above lsd. Highest water level 50.20 below lsd, Dec. 8, 1955 (previously reported 53.77 below lsd, Dec. 13, 1944); lowest 62.40 below lsd, May 11, 1954. Records available: 1931-32, 1935, 1937-60. Records furnished by San Bernardino County Flood Control District.

Apr. 5, 1956	56.78	Nov. 19, 1957	57.95	Mar. 10, 1959	g55.63	Mar. 1, 1960	g61.5
Dec. 18	56.65	Mar. 8, 1958	g56.29	May 11	54.11	18	57.53
Apr. 30, 1957	58.14	24	56.58	Nov. 3	g58.68	Nov. 7	g69.90
Nov. 5	g57.30	Nov. 21	56.41	6	57.90		

g Measurement made by U. S. Geol. Survey.

6/6-32K1. F. Reinke. El Mirage Valley. Drilled stock water-table well in deposits of Pleistocene age, diam 12 in, depth 226 ft, cased with steel. Lsd about 3,047.8 ft above msl. MP hole in casing, 0.88 ft above lsd. Highest water level 131.0 below lsd, Feb. 20, 1918; lowest 167.10 below lsd, Dec. 5, 1955. Records available: 1918, 1947, 1949-60.

Feb. 20, 1918	h131.0	May 14, 1952	157.9	Apr. 3, 1956	g158.00	Nov. 20, 1958	g166.57
Nov. 14, 1947	157.8	Nov. 29	159.75	Nov. 7	156.84	Mar. 10, 1959	156.57
23	158.1	May 22, 1953	157.30	Dec. 17	g158.40	May 1	g155.93
May 26, 1949	158.9	Nov. 5	g163.35	Apr. 29, 1957	g164.20	Nov. 3	156.67
Jan. 11, 1950	165.3	May 10, 1954	g166.40	Nov. 6	157.62	5	g155.96
May 8	158.0	Nov. 15	g161.35	Mar. 8, 1958	156.68	Feb. 29, 1960	156.47
Nov. 16	156.9	Apr. 11, 1955	g161.25	Apr. 7	g157.30	Mar. 18	g156.55
May 15, 1951	156.4	Dec. 5	g167.10	Nov. 4	156.57	Nov. 7	156.52
Nov. 27	156.7						

g Measurement made by San Bernardino County Flood Control District.

h Measurement made by California Department of Engineering.

## Middle Basin

6N/4W-6E6. R. D. Workman. South of LaDelta. Drilled unused water-table well in alluvium, diam 6 in, depth 104 ft, cased with steel. Lsd about 2,580 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 42.88 below lsd, Mar. 3, 1960; lowest 44.54 below lsd, Nov. 17, 1960. Records available: 1958-60, Nov. 7, 1958, 44.53; Mar. 12, 1959, 42.90; Nov. 30, 44.20; Mar. 3, 1960, 42.88; Nov. 17, 44.54.

6N/5W-8F1. Lingren. North of Adelanto. Drilled domestic water-table well in alluvium, diam 8 in, depth about 90 ft, cased with steel. Lsd about 2,780 ft above msl. MP hole in west side of casing, 0.65 ft above lsd. Highest water level 77.13 below lsd, Dec. 17, 1956; lowest 82.76 below lsd, Nov. 29, 1952. Records available: 1947-60.

6N/5W-8F1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 23, 1947	g78.6	Nov. 27, 1951	g77.3	Apr. 11, 1955	g77.72	Nov. 4, 1958	77.42
May 4, 1948	g79.6	May 13, 1952	g79.6	Dec. 5	g77.40	Mar. 9, 1959	77.54
Nov. 23	g77.6	Nov. 29	g82.76	Apr. 3, 1956	77.40	May 1	g79.49
May 25, 1949	g78.8	May 22, 1953	g79.32	Dec. 17	g77.13	Nov. 7	g77.36
Jan. 11, 1950	g78.0	Nov. 5	g79.32	Apr. 29, 1957	g78.84	16	77.67
May 8	g77.6	May 10, 1954	79.15	Jan. 17, 1958	77.58	Feb. 26, 1960	77.78
Nov. 16	g77.6	Nov. 15	g78.42	Apr. 7	g77.59	29	77.76
May 15, 1951	g77.47						

g Measurement made by San Bernardino County Flood Control District.

6/5-14M1. Owner unknown. North of George Air Force Base. Dug unused water-table well in alluvium of Pleistocene age, diam 45 in., depth 164 ft, cribbed with wood. Lsd about 2,825 ft above msl. MP top of wood curbing, 0.80 ft above lsd. Highest water level 116.41 below lsd, Feb. 29, 1960; lowest 120.7 below lsd, May 8, 1950. Records available: 1947-60.

Oct. 21, 1947	g118.2	Nov. 27, 1951	g118.7	Dec. 5, 1955	g117.1	Nov. 19, 1958	g116.78
May 4, 1948	g117.9	May 13, 1952	g117.7	Apr. 3, 1956	117.98	Mar. 9, 1959	116.61
Nov. 23	g118.2	Nov. 29	g117.95	Dec. 17	g117.20	May 1	g116.61
May 25, 1949	g117.7	May 22, 1953	g117.37	Apr. 29, 1957	g118.46	Nov. 16	116.50
Jan. 11, 1950	g118.6	Nov. 5	g117.70	Oct. 11	116.91	Feb. 29, 1960	116.41
May 8	g120.7	May 10, 1954	g118.00	Nov. 18	116.87	Mar. 18	g118.39
Nov. 16	g117.6	Nov. 15	g118.27	Apr. 7, 1958	g116.67	Nov. 14	116.67
May 15, 1951	g117.65	Apr. 11, 1955	g118.30	Nov. 4	116.60		

g Measurement made by San Bernardino County Flood Control District.

7N/5W-7N1. Bob's Smoke Shop. North of Adelanto. Drilled domestic water-table well in alluvium of Pleistocene age, diam 6 in., depth about 178 ft, cased with steel. Lsd about 2,780 ft above msl. MP top of casing, 0.80 ft above lsd. Highest water level 145.80 below lsd, Feb. 29, 1960; lowest 157.2 below lsd, Oct. 26, 1950. Records available: 1950, 1958-60. Oct. 26, 1950, 157.2 (measurement made by U. S. Bureau of Reclamation); Feb. 27, 1958, 150.00; Nov. 4, 148.18; Mar. 9, 1959, 147.63; Nov. 17, 146.62; Feb. 29, 1960, 145.80; Nov. 14, 150.13.

8/4W-12Q1. Holcomb Bros. Near Wild Crossing. Drilled irrigation water-table well in alluvium, diam 48 in., depth unknown, cased. Lsd about 2,329 ft above msl. MP top of casing under discharge, 2.50 ft above lsd. Highest water level 7.16 below lsd, May 13, 1954 (previously reported 8.16 below lsd); lowest 28.88 below lsd, June 3, 1957. Records available: 1931-32, 1935-37, 1939-41, 1943-60. Records furnished by San Bernardino County Flood Control District.

Mar. 29, 1956	11.77	Dec. 2, 1957	28.10	Dec. 1, 1958	11.57	Feb. 1, 1960	15.56
Nov. 5	13.12	Jan. 8, 1958	13.64	Jan. 7, 1959	11.99	Mar. 2	15.99
Dec. 5	12.80	Feb. 7	12.68	Feb. 5	12.28	2	g15.89
Jan. 2, 1957	12.97	Mar. 5	21.49	Mar. 5	11.53	May 2	17.22
Feb. 6	12.30	24	12.10	May 4	14.07	31	g32.14
Mar. 6	12.54	May 1	19.07	Nov. 3	16.46	July 6	g32.00
Apr. 3	28.39	June 4	17.47	11	15.15	Oct. 6	21.20
May 1	15.71	10	g16.96	Dec. 1	g15.45	Nov. 3	21.15
June 3	28.88	July 7	17.93	1	16.46	17	g20.85
Aug. 29	17.65	Sept. 5	20.52	Jan. 4, 1960	15.85	Dec. 1	20.60
Oct. 1	17.67	Nov. 5	11.36				

g Measurement made by U. S. Geol. Survey.

8/4W-31R1. Fred Orebaugh. Near Helendale. Dug and drilled unused water-table well, diam 14 in. Lsd about 2,449 ft above msl. MP top of casing, 12.72 ft below lsd. Highest water level 14.10 below lsd, Apr. 25, 1946 (previously reported 5.14 below lsd, Jan. 16, 1953); lowest 27.41 below lsd, Nov. 11, 1959. Records available: 1930-32, 1934-48, 1950-60. Records furnished by San Bernardino County Flood Control District. Corrected measurements shown for 1953-55.

Jan. 16, 1953	17.29	Nov. 17, 1954	22.32	Dec. 2, 1957	23.82	Nov. 30, 1959	g25.82
Feb. 17	18.03	Dec. 9, 1955	22.94	Mar. 25, 1958	19.87	Mar. 4, 1960	21.16
May 26	18.54	Apr. 12, 1956	19.27	Mar. 12, 1959	g21.58	22	22.37
Nov. 12	21.07	Dec. 20	22.86	Nov. 11	27.41	Nov. 14	g26.59
May 13, 1954	18.82						

g Measurement made by U. S. Geol. Survey.

9N/1W-5D1. Tex Bennett. Barstow. Drilled industrial water-table well in alluvium, diam 10 in., depth 60 ft, cased with steel. Lsd about 2,115 ft above msl. MP top of casing, 2.00 ft above lsd. Highest water level 24.01 below lsd, June 19, 1958; lowest 27.91 below lsd, Nov. 16, 1960. Records available: 1958-60. June 19, 1958, 24.01; Dec. 1, 1959, 27.90; May 2, 1960, 27.18; Nov. 16, 27.91.

10N/3W-35N1. Edward Horton. Near Hinkley. Drilled domestic water-table well in alluvium, diam 8 in, depth 144 ft, cased. Lsd about 2, 220 ft above msl. MP top of casing, 0.95 ft above lsd. Highest water level 51.1 below lsd, Dec. 19, 1930; lowest 105.41 below lsd, Mar. 2, 1960. Records available: 1930-32, 1958-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 19, 1930	52.0	Mar. 4, 1932	52.8	July 26, 1932	55.4	Dec. 1, 1959	96.81
Dec. 19	51.1	29	53.4	Dec. 22	54.4	Mar. 2, 1960	105.41
Aug. 6, 1931	54.0	Apr. 21	54.1	Nov. 20, 1958	94.08	Nov. 16	93.34

## Lower Basin

8/4E-12L1. Mojave Camp Service Station. East of Troy Dry Lake. Drilled public-supply water-table well in alluvium, diam 10 in, reported depth 205 ft, cased with steel. Lsd about 1, 810 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 30.39 below lsd, Mar. 27, 1958; lowest 33.58 below lsd, Nov. 24, 1942. Records available: 1930, 1932, 1935-45, 1947-60. Records furnished by San Bernardino County Flood Control District.

Apr. 17, 1956	31.20	Dec. 4, 1957	31.26	May 5, 1959	31.63	Mar. 24, 1960	31.56
Dec. 26	31.40	Mar. 27, 1958	30.39	June 17	g31.21	Nov. 15	g31.86
May 3, 1957	30.70	Dec. 3	31.17	Nov. 12	31.20		

g Measurement made by U. S. Geol. Survey.

9/1E-13E2. California Electric Power Co. Formerly Getz. Drilled unused water-table well in alluvium, diam 12 in, depth 170 ft, cased with steel. Lsd about 1, 950 ft above msl. MP top of casing, 0.70 ft above lsd. Highest water level 54.46 below lsd, Apr. 26, 1944; lowest 86.20 below lsd, Aug. 31, 1960. Records available: 1925-27, 1930-33, 1935-60. Records furnished by San Bernardino County Flood Control District.

Mar. 29, 1956	79.90	Dec. 3, 1957	83.10	Dec. 3, 1958	g82.12	Jan. 4, 1960	83.80
Nov. 5	81.69	Jan. 8, 1958	83.33	Jan. 5, 1959	82.00	Feb. 1	83.88
Dec. 5	81.23	Feb. 7	83.10	Feb. 5	82.08	Mar. 2	84.66
Jan. 2, 1957	81.32	Mar. 5	83.15	Mar. 5	82.33	May 2	84.02
Feb. 6	81.31	26	g83.24	Apr. 2	82.58	31	85.35
Mar. 6	81.43	May 1	82.81	June 4	81.81	July 6	85.73
Apr. 3	81.68	June 4	82.80	July 1	83.16	Aug. 3	86.00
May 3	82.04	July 2	82.52	Aug. 3	83.37	31	86.20
June 3	82.36	Aug. 6	82.69	Sept. 1	83.66	Oct. 6	85.90
July 2	82.64	Sept. 5	82.77	Oct. 1	83.84	27	g85.74
Aug. 1	82.89	Oct. 1	82.68	Nov. 3	83.90	Nov. 3	85.37
29	83.10	Nov. 5	82.71	Dec. 1	82.93	Dec. 1	85.50
Oct. 2	83.39						

g Measurement made by U. S. Geol. Survey.

9/2E-20Q1. Daggett Airport. Minneola Crossing. Drilled domestic water-table well in alluvium, diam 12 in, reported depth 142 ft, cased with steel. Lsd about 1, 922 ft above msl. MP hole drilled at southwest side of pumpbase, plugged with redwood, 0.40 ft above lsd. Highest water level 41.81 below lsd, Nov. 15, 1945; lowest 66.60 below lsd, Mar. 24, 1960. Records available: 1932, 1941-48, 1952-60. Records furnished by San Bernardino County Flood Control District.

Apr. 13, 1956	57.82	Dec. 4, 1957	60.28	Dec. 3, 1958	60.88	Nov. 12, 1959	60.92
Dec. 27	58.84	Mar. 26, 1958	60.33	May 5, 1959	61.38	Mar. 24, 1960	66.60
May 2, 1957	59.27						

9/3E-12E1. Tankersley. Northeast of Troy Dry Lake. Drilled domestic and irrigation water-table well in alluvium, diam 10 in, depth unknown, cased with steel. Lsd about 1, 801 ft above msl. MP top of casing, 2.60 ft below lsd. Highest water level 23.84 below lsd, Mar. 23, 1922; lowest 35.60 below lsd, May 19, 1954. Records available: 1922, 1930-33, 1935, 1937-44, 1946-60. Records furnished by San Bernardino County Flood Control District.

Mar. 29, 1956	34.32	Oct. 2, 1957	33.72	Jan. 8, 1959	31.82	Dec. 1, 1959	32.81
Nov. 5	32.49	Dec. 4	31.63	Feb. 5	30.68	Jan. 4, 1960	32.45
Dec. 5	27.20	Jan. 3, 1958	32.00	Mar. 5	31.02	Feb. 1	33.27
Jan. 2, 1957	32.25	8	33.59	Apr. 2	31.27	Mar. 2	32.18
Feb. 6	31.58	Feb. 7	32.35	May 5	32.51	24	31.80
Mar. 6	31.58	Mar. 5	32.34	June 4	32.56	May 2	32.23
Apr. 3	31.90	May 1	31.96	July 1	32.50	31	33.65
May 2	32.30	June 4	32.36	Aug. 3	32.53	July 6	34.12
3	32.40	July 3	34.07	Sept. 1	33.38	Aug. 31	34.50
June 3	32.08	Sept. 5	32.93	Oct. 1	33.35	Oct. 6	35.00
July 2	32.59	Oct. 1	32.95	Nov. 3	33.19	Nov. 3	34.17
Aug. 1	34.02	Nov. 6	34.38	12	32.83	Dec. 1	33.70
29	33.15	Dec. 3	32.17	18	g32.92		

g Measurement made by U. S. Geol. Survey.

9/3E-19P1. J. G. Frey. Near Newberry. Drilled unused artesian well in alluvium, diam 12 in, reported depth 151 ft, cased with steel. Lsd about 1, 859 ft above msl. MP top of casing, 2.00 ft above lsd. Highest water level flowing, Jan. 3, May 10, Nov. 16, 1945, May 2, 1946, May 23, 1947; lowest 9.88 below lsd, May 5, 1959. Records available: 1919, 1922, 1930-35, 1938-47, 1951-60. Records furnished by San Bernardino County Flood Control District.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 4, 1956	6.70	Dec. 4, 1957	7.79	May 5, 1959	9.88	Dec. 4, 1959	9.19
Dec. 26	6.25	Mar. 26, 1958	7.30	Nov. 12	8.39	Mar. 24, 1960	8.40
May 3, 1957	7.60	Dec. 3	g8.96				

g Measurement made by U. S. Geol. Survey.

#### Santa Ana River Basin

1N/4-32N1. City of San Bernardino. Baseline well. Northwest of San Bernardino. Drilled observation water-table well in alluvium of Pleistocene age, diam 20 in, depth 581 ft, cased with steel. Lsd about 1, 184 ft above msl. MP top of casing, 1.80 ft above lsd. Highest water level 49.4 below lsd, Mar. 6, 1947; lowest 174.2 below lsd, Sept. 27, 1960. Records available: 1946-60. Records furnished by owner.

Mar. 2, 1956	141.1	Oct. 10, 1957	159.2	Oct. 7, 1958	157.4	Dec. 17, 1959	165.7
June 12	147.4	Nov. 21	158.9	Jan. 15, 1959	156.2	Mar. 11, 1960	161.2
Oct. 5	153.1	Jan. 21, 1958	153.6	Apr. 7	157.2	June 16	166.6
Dec. 21	153.1	Mar. 14	151.8	June 11	160.8	Sept. 27	174.2
Mar. 18, 1957	146.5	May 15	152.2	Sept. 4	167.2	Dec. 8	171.6
June 15	151.2	July 17	155.7				

1S/3-17C3. Harold Daniels. Northwest of Redlands. Drilled observation water-table well in alluvium of Pleistocene age, diam 8 in, depth 296 ft, cased with steel. Lsd 1, 175.83 ft above msl. MP top of 1½-in pipe, 0.30 ft above lsd. Highest water level 101.95 below lsd, July 1, 1958; lowest 152.65 below lsd, Oct. 29, 1960. Records available: 1957-60. Records furnished by Gage Canal Co.

Mar. 30, 1957	129.9	Mar. 1, 1958	135.78	Feb. 7, 1959	126.62	Jan. 2, 1960	143.12
Apr. 27	129.9	Apr. 5	129.37	Mar. 7	125.68	Feb. 6	140.93
May 25	130.5	May 1	112.87	Apr. 4	125.78	Mar. 5	138.80
June 29	133.2	June 3	102.53	May 2	127.40	Apr. 2	137.90
July 27	136.5	July 1	101.95	June 6	130.19	May 7	139.95
Aug. 31	139.9	Aug. 2	107.87	July 4	133.62	June 4	142.45
Sept. 28	142.0	Sept. 6	114.18	Aug. 1	136.92	July 2	144.75
Oct. 26	142.5	Oct. 4	118.28	Sept. 5	139.95	Aug. 6	147.15
Nov. 30	142.3	Nov. 1	121.10	Oct. 3	141.35	Sept. 3	149.78
Dec. 7	141.4	Dec. 6	124.02	Nov. 7	143.20	Oct. 1	151.31
Feb. 8, 1958	138.53	Jan. 3, 1959	126.20	Dec. 5	143.62	29	152.65

1S/3-32D1. Hinckley. Windmill well. Near San Timoteo Canyon west of Redlands. Drilled unused well in alluvium of Pliocene (?) and Pleistocene age, diam 10 in, depth 720 ft, cased with steel. Lsd 1, 206.9 ft above msl. MP top of casing, 0.60 ft above lsd. Highest water level 35.1 below lsd, Mar. 2, 1932 (previously reported 1923); lowest 197.5 below lsd, Aug. 3, 1960. Records available: 1900, 1904-07, 1910-60. Records furnished by San Bernardino Valley Water Conservation District.

Jan. 17, 1956	137.3	Aug. 20, 1957	170.3	Aug. 8, 1958	163.7	Aug. 5, 1959	176.6
Mar. 26	134.8	Oct. 2	172.4	Sept. 9	166.0	Sept. 17	179.0
July 19	156.2	Nov. 6	162.9	Oct. 6	171.7	Nov. 5	177.9
Oct. 1	164.3	Dec. 3	161.6	Nov. 13	168.0	Dec. 2	180.7
Dec. 28	162.5	Jan. 10, 1958	150.3	Dec. 20	166.3	Jan. 12, 1960	173.7
Jan. 17, 1957	151.2	Feb. 11	147.0	Jan. 30, 1959	163.0	Feb. 23	171.2
Feb. 18	142.4	Mar. 10	143.0	Mar. 16	148.1	Mar. 24	166.5
Mar. 21	137.2	Apr. 10	138.7	Apr. 14	158.0	Apr. 25	166.1
Apr. 3	137.1	May 1	140.4	May 14	166.3	May 24	178.1
May 23	146.1	June 10	147.4	June 11	168.2	June 30	195.1
July 27	164.9	July 19	160.0	July 15	174.2	Aug. 3	197.5

1S/4-1A6. Riverside Water Co. McCrary tract well 4. East of San Bernardino. Drilled public-supply water-table well in alluvium of Pleistocene age, diam 10 in, reported depth 648 ft, cased with steel. Lsd 1, 096.0 ft above msl. MP 1.56 ft above lsd. Highest water level 15.94 (previously reported 51.94) above lsd, Mar. 25, 1917; lowest 84.45 below lsd, Sept. 9, 1960. Records available: 1915-60. Records furnished by owner.

Mar. 2, 1956	38.25	Mar. 1, 1957	50.05	Oct. 11, 1957	71.15	May 2, 1958	53.55
June 1	48.85	Apr. 5	54.05	Nov. 1	63.55	June 6	54.45
Sept. 7	61.35	May 3	55.75	Dec. 6	61.35	July 4	57.65
Oct. 5	60.05	June 7	64.45	Jan. 3, 1958	58.35	Aug. 2	58.85
Dec. 7	58.85	July 12	67.85	Feb. 7	36.35	Sept. 5	60.55
Jan. 4, 1957	59.85	Aug. 2	69.35	Mar. 7	55.37	Oct. 3	60.35
Feb. 1	51.45	Sept. 6	70.95	Apr. 4	54.05	Nov. 7	59.25

1S/4-1A6--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 5, 1958	58.07	July 3, 1959	60.95	Jan. 1, 1960	48.35	July 1, 1960	66.75
Jan. 2, 1959	57.55	Aug. 7	64.55	Feb. 5	56.65	Aug. 5	71.65
Feb. 6	55.15	Sept. 4	65.25	Mar. 4	56.35	Sept. 9	84.45
Mar. 6	57.10	Oct. 2	65.85	Apr. 1	60.35	Oct. 14	73.25
Apr. 4	53.85	Nov. 6	66.75	May 6	61.85	Nov. 11	74.45
May 1	55.75	Dec. 4	66.55	June 3	63.75	Dec. 2	73.95
June 5	57.85						

1S/4-29H2. Riverside Water Co., flume 1. South of Colton. Drilled irrigation water-table well in alluvium of Pleistocene and Recent age, diam 20 in, reported depth 189 ft, cased with steel. Lsd about 934 ft above msl. MP top of casing, 4.00 ft above lsd. Highest water level 3.5 below lsd, June 3, 1938; lowest 98.80 below lsd, Oct. 7, 1960. Records available: 1928-60. Records furnished by owner.

Jan. 6, 1956	66.00	Feb. 7, 1958	65.20	Feb. 6, 1959	70.50	Feb. 5, 1960	84.60
Apr. 14	62.80	Mar. 7	62.50	Mar. 6	65.25	Mar. 4	80.80
July 13	71.00	Apr. 4	49.00	Apr. 10	72.90	Apr. 8	al12.00
Dec. 7	66.80	May 2	41.40	May 1	al04.75	May 6	81.80
Jan. 4, 1957	74.4	June 4	49.40	June 5	al11.70	June 3	al17.90
Feb. 1	60.9	July 12	57.20	July 3	85.50	July 1	al18.90
Mar. 1	50.1	Aug. 1	59.00	Aug. 7	al20.90	Aug. 5	al21.50
Apr. 12	58.70	Sept. 26	65.57	Sept. 4	93.40	Sept. 1	95.65
Oct. 18	79.60	Oct. 3	67.80	Oct. 2	92.40	Oct. 7	98.80
Nov. 8	77.00	Nov. 7	70.42	Nov. 6	97.10	Nov. 4	98.30
Dec. 6	75.40	Dec. 5	70.45	Dec. 4	97.00	Dec. 2	94.70
Jan. 3, 1958	70.10	Jan. 2, 1959	69.60	Jan. 4, 1960	90.60		

a Well being pumped.

## Yucca Valley-Twentynine Palms Area

1N/7E-26N1. Clyde Rollard. Near south end of Copper Mountain. Drilled domestic water-table well in alluvium of Pleistocene age, diam 8 in, depth 208 ft, cased with steel. Lsd about 2,475 ft above msl. MP top of casing, 1.50 ft above lsd. Highest water level 159.0 below lsd, Apr. 21, 1954; lowest 175.12 below lsd, Nov. 13, 1951. Records available: 1946-60.

Nov. 15, 1946	g169.17	Mar. 13, 1951	g168.49	Apr. 20, 1955	g168.00	Dec. 18, 1958	g167.60
Apr. 16, 1947	g169.00	Nov. 13	g175.12	Apr. 25, 1956	g168.10	Mar. 11, 1959	168.90
Nov. 17	g169.00	Apr. 14, 1952	g165.48	Jan. 17, 1957	g168.12	May 13	168.08
Apr. 7, 1948	g168.75	Nov. 18	g170.10	Apr. 24	g168.18	Nov. 6	170.28
Nov. 16	g168.40	May 25, 1953	g168.50	Apr. 8, 1958	172.91	Dec. 9	168.05
Apr. 25, 1949	g168.90	Nov. 24	g173.80	23	167.63	Mar. 2, 1960	170.84
Nov. 16	g168.93	Apr. 21, 1954	g159.0	July 22	168.15	29	g167.50
Apr. 11, 1950	g168.89	Dec. 14	g169.10	Nov. 5	168.17	Nov. 9	164.4
Nov. 7	g168.84						

g Measurement made by San Bernardino County Flood Control District.

1N/9E-5G1. U. S. Dept. of the Navy. South edge of Mesquite Dry Lake. Drilled public-supply water-table well in alluvium of Pleistocene age, diam 14 in, depth 500 ft, perforated 266-284, 324-330, 358-365, 390-396, 415-428. Lsd 1,779.2 ft above msl. MP hole in pump-base, 0.80 ft above lsd. Highest water level 4.98 below lsd, Apr. 28, 1952; lowest 6.52 below lsd, Sept. 1, 1960. Records available: 1952-60.

Feb. 13, 1952	5.48	May 17, 1955	5.07	Apr. 3, 1957	5.16	Mar. 11, 1959	5.34
Apr. 28	4.98	June 17	b5.35	May 7	5.12	Apr. 7	5.20
Dec. 5	a20.31	July 21	5.23	June 6	5.26	May 11	5.27
Jan. 23, 1953	a12.82	Aug. 24	5.22	July 5	5.36	June 10	5.58
Feb. 15	5.18	Sept. 23	a39.75	Aug. 6	5.32	July 7	5.32
16	a12.55	Oct. 18	5.25	Sept. 9	5.71	Oct. 6	5.40
Apr. 30	48.49	Nov. 23	5.29	Oct. 7	5.27	Nov. 7	5.30
May 29	a21.95	Dec. 21	5.29	Nov. 7	5.24	Dec. 9	6.00
Aug. 8	5.00	Jan. 23, 1956	5.26	Dec. 9	5.21	Jan. 4, 1960	6.21
Aug. 24, 1954	a50	Mar. 1	5.30	Jan. 10, 1958	5.19	Feb. 1	b7.12
Sept. 24	5.16	May 1	5.29	Feb. 10	5.54	Mar. 2	6.24
Oct. 21	5.16	July 2	5.35	Mar. 11	5.16	Apr. 3	6.14
Nov. 20	5.18	Sept. 5	6.13	Apr. 16	5.17	May 3	52.9
Dec. 21	5.15	Oct. 4	5.35	May 14	5.19	Sept. 1	6.52
Jan. 20, 1955	5.15	Dec. 3	5.25	June 14	5.69	Oct. 3	6.41
Feb. 20	5.13	Jan. 9, 1957	b5.85	Aug. 12	5.32	Nov. 9	6.42
Mar. 16	5.09	Feb. 7	5.30	Jan. 6, 1959	5.21	Dec. 5	6.33
Apr. 15	5.09	Mar. 5	5.32	Feb. 6	5.38		

a Well being pumped.

b Well pumped recently.

1N/9E-30Q1. Mathias Laufer (Mission Inn). West of Twentynine Palms. Drilled unused water-table well in alluvium of Pleistocene age, diam 8 in, depth 144 ft, cased with steel. Lsd 2,091.6 ft above msl. MP top of casing, 3.40 ft above lsd. Highest water level 101.80 below lsd, May 24, 1953; lowest 105.24 below lsd, Nov. 9, 1960. Records available: 1946-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 8, 1946	g102.94	Nov. 14, 1951	g101.92	Apr. 20, 1955	g102.00	Nov. 5, 1958	103.24
Apr. 8, 1947	g103.01	Apr. 15, 1952	g101.92	Dec. 20	g102.10	Dec. 18	g103.32
Nov. 18	g102.74	Nov. 20	g102.10	Apr. 25, 1956	g102.15	Mar. 11, 1959	103.58
Apr. 8, 1948	g104.30	Dec. 4	102.18	Jan. 17, 1957	g102.42	May 14	g103.62
Nov. 15	g102.41	Feb. 18, 1953	101.82	Apr. 25	g102.40	Nov. 6	104.22
Apr. 27, 1949	g102.23	May 24	g101.80	Dec. 17	g102.64	Dec. 9	g104.10
Nov. 17	g102.29	Nov. 24	g103.50	Apr. 24, 1958	102.76	Mar. 2, 1960	104.46
Apr. 12, 1950	g101.97	Apr. 21, 1954	g101.90	28	102.84	30	g104.80
Nov. 8	g101.89	Dec. 14	g102.00	July 23	103.03	Nov. 9	105.24
Mar. 14, 1951	g101.94						

g Measurement made by San Bernardino County Flood Control District.

1S/5E-2B1. Owner unknown. Yucca Valley. Drilled unused water-table well in alluvium of Pleistocene age, diam 8 in, depth 240 ft, cased with steel. Lsd about 3,240 ft above msl. MP top of casing, at lsd. Highest water level 161.18 below lsd, Nov. 13, 1947; lowest 179.48 below lsd, Nov. 8, 1960. Records available: 1947-60.

Apr. 15, 1947	g161.90	Mar. 12, 1951	g165.38	Apr. 19, 1955	g170.20	Mar. 11, 1959	176.13
Nov. 13	g161.18	Nov. 12	g166.00	Dec. 19	g171.05	May 13	g176.97
Apr. 5, 1948	g161.83	Apr. 14, 1952	g165.88	Apr. 24, 1956	g171.43	Nov. 3	177.40
Nov. 16	g162.54	Nov. 18	g167.76	Jan. 16, 1957	g172.37	Dec. 8	g177.40
Apr. 27, 1949	g163.12	May 22, 1953	g167.90	Apr. 23	g172.70	Mar. 2, 1960	178.15
Nov. 15	g163.86	Nov. 23	g170.40	Apr. 23, 1958	g174.37	29	g178.15
Apr. 10, 1950	g164.29	Apr. 20, 1954	g171.00	Nov. 5	175.27	Nov. 8	179.48
Nov. 6	g164.96	Dec. 13	g172.70	Dec. 17	g175.25		

g Measurement made by San Bernardino County Flood Control District.

#### Morongo Valley

1S/4E-22J1. Clara V. Livingstone. Morongo Valley. Drilled domestic water-table well in alluvium of Pleistocene age, diam 8 in, depth 235 ft, cased with steel. Lsd about 2,750 ft above msl. MP top of casing, 0.85 ft above lsd. Highest water level 154.10 below lsd, Apr. 20, 1954; lowest 172.15 below lsd, Mar. 29, 1960. Records available: 1947-60.

Nov. 13, 1947	g155.45	Nov. 23, 1953	g171.6	Apr. 23, 1957	g166.92	May 13, 1959	g172.07
Nov. 17, 1948	g156.04	Apr. 20, 1954	g154.10	Mar. 13, 1958	163.77	Nov. 6	168.31
Nov. 15, 1949	g157.33	Dec. 13	g161.70	Apr. 22	g169.45	Dec. 8	g167.25
Nov. 6, 1950	g158.57	Apr. 19, 1955	g163.62	Nov. 6	166.43	Mar. 2, 1960	167.52
Nov. 12, 1951	g160.47	Dec. 19	g164.70	Dec. 17	g166.79	29	g172.15
Nov. 17, 1952	g161.40	Apr. 24, 1956	g166.99	Mar. 11, 1959	166.72	Nov. 9	168.09
May 22, 1953	g161.30	Jan. 17, 1957	g164.66				

g Measurement made by San Bernardino County Flood Control District.

#### Dale Valley

1N/12E-20D1. Dale Chemical Co. Northwest of Dale Lake on Amboy Rd. Drilled unused water-table well in alluvium of Pleistocene age, diam 12 in, depth unknown, cased with steel. Lsd about 1,220 ft above msl. MP bottom of I-beam, 0.50 ft above lsd. Highest water level 27.88 below lsd, Mar. 30, 1960; lowest 30.78 below lsd, Dec. 15, 1954. Records available: 1953-60.

May 26, 1953	29.35	Apr. 20, 1955	29.07	Apr. 25, 1957	28.61	May 14, 1959	29.10
Nov. 27	28.75	Dec. 20	29.65	Dec. 27	28.70	June 2	g28.35
Mar. 5, 1954	29.16	Apr. 26, 1956	29.24	Apr. 24, 1958	28.27	Dec. 10	28.12
Apr. 21	30.10	Jan. 18, 1957	28.44	Dec. 18	27.97	Mar. 30, 1960	27.88
Dec. 15	30.78						

g Measurement made by U. S. Geol. Survey.

#### Johnson Valley

4N/3E-24Q1. Owner unknown. Northeast of Old Woman Springs. Drilled unused water-table well in alluvium of Pleistocene age, diam 12 in, depth 242 ft, cased with steel. Lsd about 2,835 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 54.60 below lsd, May 6, 1954; lowest 55.28 below lsd, Nov. 4, 1959. Records available: 1954-60.

May 6, 1954	54.60	Nov. 1, 1956	54.69	Mar. 9, 1958	54.73	Nov. 4, 1959	55.28
Mar. 15, 1955	54.67	Mar. 6, 1957	54.70	Nov. 5	55.01	Mar. 2, 1960	54.94
Oct. 18	54.73	Nov. 6	54.80	Mar. 11, 1959	54.87	Nov. 8	55.01
Mar. 25, 1956	54.69						

## Lucerne Valley Area

5N/1W-1R3. Hards. North of Lucerne Lake. Drilled unused water-table well in alluvium of Pleistocene age, diam 12 in, depth about 165 ft, cased with steel. Lsd about 2, 890 ft above msl. MP top of casing, 0.60 ft above lsd. Highest water level 75.9 below lsd, Nov. 8, 1954; lowest 92.11 below lsd, Nov. 8, 1960. Records available: 1954-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 8, 1954	75.9	Nov. 1, 1956	83.03	Mar. 9, 1958	83.99	Nov. 5, 1959	89.85
Mar. 14, 1955	76.95	Mar. 7, 1957	81.63	Nov. 5	88.26	Mar. 1, 1960	89.02
Nov. 9	79.24	Nov. 14	85.17	Mar. 11, 1959	86.31	Nov. 8	92.11
Mar. 24, 1956	78.78						

5/1W-35Q1. Owner unknown. South of Lucerne Lake. Drilled irrigation water-table well in alluvium of Pleistocene age, diam 12 in, depth about 300 ft, cased with steel. Lsd about 2, 855 ft above msl. MP hole in pumpbase, 1.00 ft above lsd. Highest water level 34.99 below lsd, Mar. 14, 1955; lowest 48.29 below lsd, Sept. 23, 1954. Records available: 1954-60.

Apr. 17, 1954	43.10	Mar. 14, 1955	34.99	Mar. 7, 1957	36.70	Nov. 3, 1959	47.31
Sept. 23	48.29	Oct. 18	42.03	Nov. 14	36.98	Dec. 7	39.15
Nov. 8	42.25	Nov. 9	c40.32	Mar. 9, 1958	36.40	Mar. 1, 1960	37.70
8	36.71	Mar. 23, 1956	38.14	Nov. 5	39.23	Nov. 8	35.86
30	c35.58	Nov. 1	39.08	Mar. 10, 1959	40.29		

c Nearby well being pumped.

4N/1E-13M1. Wilson. Eastern part of Lucerne Valley. Drilled domestic water-table well in alluvium of Pleistocene age, diam 12 in, depth about 270 ft, cased with steel to 8+. Lsd about 3, 020 ft above msl. MP hole in pumpbase, 0.40 ft above lsd. Highest water level 170.9 below lsd, Mar. 3, 1960; lowest 172.34 below lsd, Mar. 6, 1957. Records available: 1954-60.

Nov. 19, 1954	171.00	Nov. 1, 1956	171.35	Mar. 9, 1958	171.56	Nov. 5, 1959	171.9
Mar. 14, 1955	171.05	Mar. 6, 1957	172.34	Nov. 5	171.69	Mar. 3, 1960	170.9
Nov. 9	171.10	Nov. 14	171.50	Mar. 11, 1959	171.90	Nov. 8	172.19
Mar. 25, 1956	171.24						

## Harper Valley Area

11/3-7D1. Owner unknown. Northeast of Harper Lake. Drilled unused water-table well in alluvium of Pleistocene age, diam 12 in, depth about 123 ft, cased with steel. Lsd about 2, 082 ft above msl. MP top of casing, 2.00 ft above lsd. Highest water level 55.55 below lsd, June 16, 1954; lowest 42.42 below lsd, Apr. 26, 1953. Records available: 1953-60.

Apr. 26, 1953	62.42	Mar. 23, 1956	56.89	Mar. 11, 1958	58.45	Nov. 18, 1959	59.69
June 16, 1954	55.55	Nov. 2	57.28	Nov. 6	58.91	Mar. 2, 1960	59.90
Mar. 4, 1955	56.09	Mar. 6, 1957	60.30	Mar. 12, 1959	59.21	Nov. 16	60.33
Nov. 17	56.62	Nov. 8	58.15				

11/4-29R1. Lockhart Ranch. Drilled unused water-table well in alluvium of Pleistocene age, diam unknown, depth about 500 ft, cased with steel. Lsd about 2, 085 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 83.46 below lsd, Nov. 17, 1960; lowest 98.85 below lsd, Nov. 1, 1956. Records available: 1953-60.

June 16, 1953	94.9	Mar. 4, 1955	86.82	Nov. 1, 1956	98.85	Mar. 11, 1958	96.72
Mar. 17, 1954	85.33	Nov. 17	c94.06	Mar. 6, 1957	92.12	Mar. 11, 1959	94.66
Dec. 1	89.27	Mar. 22, 1956	95.17	Nov. 8	97.62	Nov. 17, 1960	83.46

c Nearby well being pumped.

## Superior Valley Area

31/46-12P1. Owner unknown. East edge of Superior Lake. Drilled unused water-table well in alluvium of Pleistocene age, diam 10 in, depth 154 ft, cased with steel. Lsd about 3, 004 ft above msl. MP top of casing, 3.00 ft above lsd. Highest water level 84.0 below lsd, Feb. 10, 1954; lowest 84.78 below lsd, Oct. 30, 1956, Nov. 7, 1957. Records available: 1954-59. Measurement discontinued; replaced by well 31/46-2M1.

Feb. 10, 1954	84.0	Nov. 17, 1955	84.71	Mar. 6, 1957	84.72	Nov. 5, 1958	84.72
Dec. 1	84.76	Mar. 21, 1956	84.69	Nov. 7	84.78	Mar. 10, 1959	84.67
Mar. 6, 1955	84.72	Oct. 30	84.78	Mar. 10, 1958	84.65		

31/46-2M1. U. S. Government. Northeast edge of Superior Dry Lake. Drilled unused water-table well in alluvium of Pleistocene (?) age, diam 8 in, depth 117 ft, cased with steel. Lsd about 3, 020 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 99.01 below lsd, Mar. 1, 1960; lowest 105 below lsd, 1920. Records available: 1920, 1954-60.

31/46-2M1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1920	g105	Nov. 17, 1955	99.65	Nov. 1, 1957	99.77	Nov. 17, 1959	99.75
Feb. 10, 1954	101.7	Mar. 21, 1956	99.74	Mar. 10, 1958	99.63	Mar. 1, 1960	99.01
Dec. 1	99.75	Oct. 30	99.75	Nov. 5	101.78	Nov. 14	99.60
Mar. 6, 1955	99.82	Mar. 6, 1957	99.68	Mar. 10, 1959	99.75		

g Measurement reported by D. G. Thompson.

## Cuddeback Valley Area

30/42-20D1. Owner unknown. West edge of Cuddeback Lake. Drilled unused water-table well in alluvium of Pleistocene age, diam 6 in, depth unknown, cased with steel. Lsd about 2,630 ft above msl. MP top of metal cover, at lsd. Highest water level 91.22 below lsd, Nov. 14, 1960; lowest 93.20 below lsd, Oct. 30, 1956. Records available: 1953, 1955-60.							
Apr. 29, 1953	91.25	Mar. 20, 1956	92.58	Mar. 10, 1958	92.00	Nov. 17, 1959	91.47
Mar. 5, 1955	c99.74	Oct. 30	93.20	Nov. 4	91.78	Mar. 1, 1960	91.23
May 8	c98.89	Mar. 5, 1957	93.10	Mar. 10, 1959	91.58	Nov. 14	91.22
Nov. 16	92.39	Nov. 6	92.16				

c Nearby well being pumped.

## Coyote Valley Area

12/2-31A1. U. S. Army. Camp Irwin. West of Coyote Lake. Drilled unused water-table well in alluvium of Pleistocene age, diam 14 in, depth 584 ft, perforated 150-552. Lsd 1,789.5 ft above msl. MP hole in casing cover, 1.88 ft above lsd. Highest water level 55.82 below lsd, Mar. 6, 1957; lowest 56.57 below lsd, Jan. 7, 1955. Records available: 1955-60.							
Jan. 1, 1955	56.24	Mar. 1, 1955	55.88	Mar. 6, 1957	55.82	Nov. 19, 1959	55.93
5	56.08	6	55.94	Nov. 7	55.93	Dec. 1	55.86
6	56.36	Nov. 3	55.92	Mar. 10, 1958	55.87	Mar. 3, 1960	55.90
7	56.57	Mar. 21, 1956	55.87	Nov. 5	55.90	Nov. 15	55.98
11	56.33	Oct. 31	55.94	Mar. 11, 1959	55.94		

## Soda Lake Valley Area

13N/9E-20J1. Fred Twisselman. East edge of Soda Lake. Drilled unused water-table well in alluvium of Pleistocene age, diam 16 in, depth about 400 ft, cased with steel. Lsd about 980 ft above msl. MP hole in pumpbase, 1.10 ft above lsd. Highest water level 65.35 below lsd, Dec. 2, 1959; lowest 65.89 below lsd, Oct. 27, 1954. Records available: 1954-56, 1958-60. No measurement made in 1957.							
Feb. 18, 1954	65.82	Nov. 3, 1955	65.83	Mar. 11, 1959	65.55	Mar. 3, 1960	65.56
Oct. 27	65.89	Mar. 22, 1956	65.70	Dec. 2	65.35	Nov. 16	65.65
Mar. 2, 1955	65.71	Nov. 6, 1958	65.74				

## Silver Lake Valley Area

15N/8E-22R1. Death Valley Panamint Mining Co. Northeast edge of Silver Lake. Drilled domestic and industrial water-table well in alluvium of Pleistocene age, diam 12 in, depth about 120 ft, cased with steel. Lsd about 930 ft above msl. MP hole in pumpbase, 0.81 ft above lsd. Highest water level 55.84 below lsd, Mar. 12, 1958; lowest 56.12 below lsd, Oct. 31, 1956. Records available: 1954-60.							
Feb. 18, 1954	55.92	Mar. 22, 1956	55.98	Mar. 12, 1958	55.84	Nov. 20, 1959	55.97
Oct. 27	55.98	Oct. 31	56.12	Nov. 6	56.03	Mar. 3, 1960	55.98
Mar. 3, 1955	55.87	Mar. 7, 1957	55.93	Mar. 11, 1959	55.97	Nov. 16	56.08
Nov. 3	56.01	Nov. 7	56.01				

## Cronise Lake Area

12N/7E-18R1. Owner unknown. South edge of East Cronise Lake. Drilled unused water-table well in alluvium of Pleistocene age, diam 12 in, depth 138 ft, cased with steel. Lsd about 1,075 ft above msl. MP top of casing, 3.60 ft above lsd. Highest water level 15.36 below lsd, Feb. 19, 1954; lowest 18.53 below lsd, Nov. 16, 1960. Records available: 1954-60.							
Feb. 19, 1954	15.36	Mar. 3, 1956	16.09	Mar. 11, 1958	16.98	Dec. 2, 1959	18.11
Oct. 26	15.51	Oct. 31	16.22	Nov. 5	17.24	Mar. 3, 1960	18.26
Mar. 2, 1955	15.73	Mar. 7, 1957	16.48	Mar. 11, 1959	17.55	Nov. 16	18.53
Nov. 3	15.87	Nov. 7	16.79				

San Diego County

## San Diego River Basin

15/1E-17H6. La Mesa, Lemon Grove, and Spring Valley Irrigation District. Near Lakeside. Drilled unused water-table well in alluvium of Recent age, diam 14 in, depth 61 ft, perforated 39-61. Lsd 434.4 ft above msl. MP hole in casing cover, 1.00 ft above lsd. Highest water level 0.2 below lsd, May 18, 1930; lowest dry, Nov. 19, 1959. Records available: 1929-32, 1934-59. Well dry in 1960.

Date	Water level						
Feb. 21, 1956	51.70	Feb. 26, 1957	51.17	Feb. 25, 1958	50.32	Feb. 26, 1959	48.10
May 17	51.18	May 28	49.88	May 28	49.47	May 27	55.30
Aug. 29	52.80	Aug. 29	51.90	Aug. 28	49.70	Nov. 19	(f)
Nov. 20	52.77	Nov. 26	51.48	Nov. 25	48.60		
f Dry.							

15/1W-13R4. Owner unknown. Lakeside. Drilled unused water-table well in alluvium of Recent age, diam 12 in, depth 107 ft, cased with steel. Lsd 386.5 ft above msl. MP top of board cover, at lsd. Highest water level 34.75 below lsd, Feb. 24, 1954; lowest 45.33 below lsd, Aug. 29, 1956. Records available: 1953-56, 1958-60. No measurement made in 1957.

Feb. 21, 1956	39.78	Nov. 25, 1958	40.70	Aug. 27, 1959	43.36	May 23, 1960	41.37
May 17	41.75	Feb. 26, 1959	40.30	Nov. 19	45.16	Aug. 9	36.50
Aug. 29	45.33	May 27	43.55	Feb. 18, 1960	41.36	Nov. 16	39.86
Nov. 20	44.75						

16/2W-19D1. Woodward Sand Co. Mission Valley. Drilled unused water-table well in alluvium of Recent age, diam 6 in, depth 57 ft, cased with steel. Lsd 47.2 ft above msl. MP top of flange, 5.00 ft above lsd (since Feb. 26, 1957). Highest water level 14.80 below lsd, May 28, 1958; lowest 24.50 below lsd, Aug. 29, 1956. Records available: 1953-60.

Feb. 21, 1956	22.84	Nov. 26, 1957	23.03	Feb. 26, 1959	16.14	Feb. 18, 1960	18.98
Aug. 29	24.50	Feb. 25, 1958	15.75	May 27	16.88	May 23	18.71
Feb. 26, 1957	17.41	May 28	14.80	Aug. 27	20.05	Aug. 9	20.08
May 28	19.16	Aug. 28	18.90	Nov. 19	21.29	Nov. 17	21.86
Aug. 29	21.90	Nov. 25	20.96				

16/3W-21R1. Beratino. Near San Diego. Drilled domestic water-table well in alluvium of Recent age, diam 8 in, depth 27 ft. Lsd about 15 ft above msl. MP top north side of casing, at lsd. Highest water level 8.20 below lsd, Aug. 24, 1954; lowest 13.92 below lsd, Nov. 20, 1956. Records available: 1953-58. Measurement discontinued.

Feb. 21, 1956	11.25	Nov. 20, 1956	13.92	Aug. 29, 1957	11.78	May 28, 1958	8.74
May 17	11.35	Feb. 26, 1957	10.60	Nov. 26	11.95	Aug. 28	9.95
Aug. 29	12.16	May 28	10.83	Feb. 25, 1958	12.50		

16/3W-23H1. W. W. Miller. Mission Valley. Drilled irrigation water-table well in alluvium of Recent age, diam 16 in, depth 54 ft. Lsd about 30 ft above msl. MP bottom of hole in casing, 0.50 ft above lsd. Highest water level 10.94 below lsd, Feb. 23, 1954; lowest 17.12 below lsd, Nov. 26, 1957. Records available: 1953-59. Measurement discontinued.

Feb. 21, 1956	(a)	Feb. 26, 1957	(a)	Feb. 25, 1958	16.20	Feb. 26, 1959	12.00
May 17	16.70	May 28	(a)	May 28	(a)	May 27	(a)
Aug. 29	(a)	Aug. 29	(a)	Aug. 28	14.20	Aug. 27	12.60
Nov. 20	(a)	Nov. 26	17.12	Nov. 25	15.25		

a Well being pumped.

## San Dieguito River Basin

12/1W-31H2. City of San Diego. San Pasqual Valley. Drilled domestic water-table well in alluvial deposits, diam 12 in, depth 46 ft, cased with steel. Lsd 357.4 ft above msl. MP top of casing, 0.15 ft below lsd. Highest water level 3.59 below lsd, Feb. 22, 1933; lowest 16.69 below lsd, Nov. 16, 1960. Records available: 1929-60.

Feb. 20, 1956	13.15	May 28, 1957	14.31	Aug. 27, 1958	10.85	Nov. 20, 1959	(a)
May 16	13.85	Aug. 30	14.31	Nov. 24	11.73	Feb. 16, 1960	14.75
Aug. 28	14.90	Nov. 27	(a)	Feb. 26, 1959	11.46	May 20	15.30
Nov. 19	15.27	Feb. 25, 1958	14.68	May 27	12.50	Aug. 9	16.10
Feb. 25, 1957	14.05	May 29	9.12	Aug. 24	14.33	Nov. 16	16.69

a Well being pumped.

12/1W-33J1. F. B. Gierman. San Pasqual Valley. Dug unused water-table well in alluvium of Recent age, diam 10 in, depth 17 ft, lined with concrete. Lsd 391.8 ft above msl. MP top of casing, at lsd. Highest water level 0.00, Mar. 30, 1944; lowest 13.05 below lsd, Feb. 25, 1958. Records available: 1943-58. Measurement discontinued.

## 12/1W-33J1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 20, 1956	7.12	Nov. 19, 1956	10.76	Aug. 30, 1957	12.47	May 29, 1958	5.59
May 16	7.10	Feb. 25, 1957	10.60	Nov. 27	12.76	Aug. 27	7.98
Aug. 28	9.65	May 28	11.23	Feb. 25, 1958	13.05	Nov. 24	8.52

13/2W-1J1. Owner unknown. Lake Hodges, near gaging station. Drilled unused water-table well in alluvium of Recent age, diam 14 in., depth 86 ft, cased with steel. Lsd about 335 ft above msl. MP hole in south side of casing, 2.00 ft above lsd. Highest water level 2.27 below lsd, May 14, 1954; lowest 38.60 below lsd, Nov. 16, 1960. Records available: 1953-1960.

Feb. 20, 1956	14.97	May 28, 1957	(a)	Aug. 27, 1958	(a)	Nov. 20, 1959	(a)
May 14	24.69	Aug. 30	(a)	Nov. 24	(a)	Feb. 16, 1960	26.34
Aug. 28	(a)	Nov. 27	(a)	Feb. 26, 1959	25.48	May 20	(a)
Nov. 19	24.69	Feb. 25, 1958	27.54	May 27	(a)	Aug. 9	(a)
Feb. 25, 1957	16.95	May 29	(a)	Aug. 24	(a)	Nov. 16	38.60

a Well being pumped.

13/3W-33C1. Owner unknown. Near Rancho Santa Fe. Drilled unused water-table well in alluvium of Recent age, diam 12 in., depth 66 ft, cased with steel. Lsd about 40 ft above msl. MP top south side of casing, 1.00 ft above lsd. Highest water level 30.88 below lsd, Dec. 7, 1953; lowest 46.75 below lsd, Feb. 25, 1958. Records available: 1953-59. Measurement discontinued.

Feb. 20, 1956	36.80	Feb. 25, 1957	43.92	Nov. 27, 1957	46.12	Aug. 27, 1958	j43.26
May 16	38.18	May 29	j44.85	Feb. 25, 1958	j46.75	Nov. 24	j43.19
Aug. 28	j40.55	Sept. 3	j45.89	May 29	j44.60	Feb. 26, 1959	j43.30
Nov. 19	j42.36						

j Water level below sea level.

13/3W-33M1. Griset Bros. Near Rancho Santa Fe. Drilled unused water-table well in alluvium of Recent age, diam 12 in., depth 90 ft, cased with steel. Lsd about 35 ft above msl. MP top north side of casing, at lsd. Highest water level 28.22 below lsd, Jan. 8, 1954; lowest 54.87 below lsd, Nov. 16, 1960. Records available: 1954-60.

Feb. 20, 1956	j42.00	May 29, 1957	j49.38	Aug. 27, 1958	j49.85	Nov. 20, 1959	j53.09
May 16	j44.18	Sept. 3	j50.23	Nov. 24	j50.48	Feb. 23, 1960	j54.01
Aug. 28	j47.30	Nov. 27	j50.85	Feb. 26, 1959	j50.70	May 20	j54.31
Nov. 19	j48.62	Feb. 25, 1958	j50.90	May 27	j51.20	Aug. 9	j54.05
Feb. 25, 1957	j49.06	May 29	j49.25	Aug. 24	j53.27	Nov. 16	j54.87

j Water level below sea level.

## San Luis Rey River Basin

10/1W-8P1. H. N. Berger, Pauma Valley. Drilled unused water-table well in alluvium of Recent age, diam 14 in., depth 198 ft, cased with steel. Lsd about 725 ft above msl. MP top of casing, 1.50 ft above lsd (since Feb. 19, 1960). Highest water level 10.28 below lsd, May 14, 1954; lowest 36.50 below lsd, Nov. 16, 1960. Records available: 1954-58, 1960. No measurement made in 1959.

Feb. 15, 1956	13.25	Feb. 25, 1957	17.77	Feb. 26, 1958	21.30	Feb. 19, 1960	22.48
May 16	(a)	May 27	20.32	May 29	(a)	May 24	(a)
Aug. 28	(a)	Aug. 27	(a)	Aug. 27	(a)	Aug. 10	(a)
Nov. 19	(a)	Nov. 27	24.80	Nov. 28	(a)	Nov. 16	36.50

a Well being pumped.

10/2W-6F2. San Luis Rey Ranch. Monserate Narrows, near gaging station. Drilled unused water-table well in alluvium of Recent age, diam 12 in., depth 109 ft, cased with steel. Lsd 282.36 ft above msl. MP top of casing, 2.40 ft above lsd (since Nov. 19, 1960). Highest water level 5.18 below lsd, Mar. 15, 1943; lowest 32.67 below lsd, Nov. 16, 1960. Records available: 1937-60.

Feb. 15, 1956	9.27	May 27, 1957	(a)	Aug. 27, 1958	10.60	Nov. 20, 1959	21.73
May 16	9.08	Aug. 27	(a)	Nov. 28	12.86	Feb. 19, 1960	20.97
Aug. 28	15.00	Nov. 27	22.54	Feb. 25, 1959	10.20	May 24	(a)
Nov. 19	18.83	Feb. 26, 1958	17.67	May 27	12.64	Aug. 10	(a)
Feb. 26, 1957	17.78	May 29	9.72	Aug. 26	18.10	Nov. 16	32.67

a Well being pumped.

10/3W-11G1. Fallbrook Public Utility District. Near Bonsall. Drilled unused water-table well in alluvium of Recent age, diam 8 in., depth 66 ft, cased with steel. Lsd 236.91 ft above msl. MP top of 2-in coupling, 3.20 ft above lsd. Highest water level 2.33 below lsd, Mar. 15, 1943; lowest 35.73 below lsd, Nov. 27, 1957. Records available: 1939-59. Measurement discontinued.

10/3W-11G1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 15, 1956	21.50	Nov. 19, 1956	30.84	Aug. 27, 1957	35.70	Aug. 27, 1958	15.60
May 16	24.04	Feb. 25, 1957	30.02	Nov. 27	35.73	Nov. 28	21.82
Aug. 28	28.65	May 27	31.15	Feb. 26, 1958	34.26	Feb. 25, 1959	20.04

## 10/3W-16F1. San Luis Rey Mutual Heights Water Co. Bonsall and Monserate Rds.

Drilled unused water-table well in alluvium of Recent age, diam 12 in, depth 59 ft, cased with steel. Lsd about 190 ft above msl. MP top of casing, 5.00 ft above lsd. Highest water level 28.10 below lsd, Feb. 25, 1959; lowest 48.17 below lsd, Aug. 27, 1957. Records available: 1953-59. Measurement discontinued.

Feb. 15, 1956	38.05	Feb. 25, 1957	34.90	Nov. 27, 1957	47.59	Aug. 27, 1958	38.00
May 16	41.60	May 27	39.83	Feb. 26, 1958	39.33	Nov. 28	37.34
Aug. 28	45.48	Aug. 27	48.17	May 29	30.85	Feb. 25, 1959	28.10
Nov. 19	45.95						

10/3W-30K1. Fallbrook Public Utility District. Near Bonsall. Drilled unused water-table well in alluvium of Recent age, diam 8 in, reported depth 80 ft, cased with steel. Lsd 149.76 ft above msl. MP top of 2-in coupling, 3.00 ft above lsd. Highest water level 6.09 below lsd, Mar. 17, 1941; lowest 22.10 below lsd, Nov. 19, 1956. Records available: 1939-60.

Feb. 15, 1956	21.70	May 27, 1957	21.61	Aug. 27, 1958	11.65	Nov. 20, 1959	13.46
May 16	21.45	Aug. 27	21.62	Nov. 28	12.34	Feb. 19, 1960	13.25
Aug. 28	21.90	Nov. 27	21.77	Feb. 25, 1959	12.08	May 24	12.66
Nov. 19	22.10	Feb. 26, 1958	20.95	May 27	12.20	Aug. 10	13.40
Feb. 25, 1957	21.96	May 29	10.82	Aug. 26	13.15	Nov. 16	13.70

11/4W-2D1. Winston Properties. Near San Luis Rey. Drilled irrigation water-table well in alluvium of Recent age, diam 12 in, reported depth 110 ft, cased with steel. Lsd about 95 ft above msl. MP bottom northeast side of pumpbase, at lsd. Highest water level 36.69 below lsd, Feb. 23, 1954; lowest 72.57 below lsd, Nov. 27, 1957. Records available: 1953-59. Measurement discontinued.

Feb. 15, 1956	57.62	Nov. 19, 1956	72.30	Aug. 27, 1957	72.22	Aug. 27, 1958	(a)
May 16	(a)	Feb. 25, 1957	67.88	Nov. 27	72.57	Nov. 28	54.96
Aug. 28	(a)	May 27	72.22	Feb. 26, 1958	69.75	Feb. 25, 1959	54.14

a Well being pumped.

11/4W-9F1. City of Oceanside. Near San Luis Rey. Drilled observation well in alluvium of Recent age, diam 4 in, reported depth 199 ft. Lsd about 63 ft above msl. MP top of casing, 4.40 ft above lsd. Highest water level 3.47 below lsd, Mar. 14, 1943; lowest 73.35 below lsd, Jan. 6, 1958. Records available: 1940-60. Records furnished by city of Oceanside.

Jan. 9, 1956	59.93	May 6, 1957	j63.35	Aug. 4, 1958	j64.18	Nov. 9, 1959	j68.10
Feb. 6	59.85	June 3	j63.27	Sept. 2	j66.27	Dec. 7	j68.02
Mar. 6	59.68	July 1	j64.43	Oct. 8	j65.43	Jan. 4, 1960	j67.02
Apr. 9	60.02	Aug. 5	j65.93	Nov. 3	j65.68	Feb. 1	j65.60
May 7	59.81	Sept. 3	j66.93	Dec. 1	j65.27	Mar. 7	j64.60
June 4	60.10	Oct. 7	j67.60	Jan. 5, 1959	j58.93	Apr. 4	j65.02
July 6	61.18	Nov. 4	j65.60	Feb. 2	j67.77	May 2	j64.18
Aug. 8	62.85	Dec. 2	j70.52	Mar. 2	j63.85	June 6	j65.85
Sept. 6	j63.43	Jan. 6, 1958	j73.35	Apr. 6	j68.18	July 4	j67.10
Oct. 1	j63.77	Feb. 3	j66.60	May 4	j65.77	Aug. 1	j69.10
Dec. 3	j64.52	Mar. 3	j66.85	June 2	j64.77	Sept. 6	j66.10
Jan. 7, 1957	j65.52	Apr. 7	j64.60	July 6	j66.52	Oct. 3	j66.85
Feb. 4	j64.02	May 5	60.43	Aug. 6	j68.52	Nov. 7	j67.85
Mar. 4	j63.52	June 2	60.93	Sept. 7	j66.02	Dec. 5	j67.60
Apr. 1	j63.18	July 8	j64.43	Oct. 5	57.27		

j Water level below sea level.

11/4W-18C2. Robert Slaught. Near San Luis Rey. Drilled unused artesian well in alluvium of Recent age, diam 12 in, reported depth 134 ft, cased with steel. Lsd about 37 ft above msl. MP hole in cover, 0.50 ft above lsd. Highest water level 34.72 below lsd, Mar. 4, 1952; lowest 71.18 below lsd, Aug. 27, 1957. Records available: 1952-59. Measurement discontinued.

Feb. 15, 1956	j49.37	Feb. 25, 1957	j53.82	Nov. 27, 1957	j60.94	Aug. 27, 1958	j54.50
May 16	j59.32	May 27	j56.42	Feb. 26, 1958	j51.08	Nov. 28	j55.86
Aug. 28	j68.55	Aug. 27	j71.18	May 29	j47.45	Feb. 25, 1959	j43.70
Nov. 19	j66.90						

j Water level below sea level.

11/4W-18L3. Carlsbad Mutual Water Co. Near Oceanside. Drilled observation artesian well in alluvium of Recent age, diam 6 in, reported depth 115 ft, cased with steel. Lsd 35.34 ft above msl. MP top of casing, 1.10 ft above lsd. Highest water level 5.97 below lsd, Apr. 14, 1941; lowest 67.63 below lsd, Nov. 19, 1956. Records available: 1939-59. Measurement discontinued. Records furnished by owner.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 15, 1956	j52.80	May 27, 1957	j60.92	Feb. 26, 1958	j50.90	Nov. 28, 1958	j49.21
Nov. 19	j67.63	Aug. 27	j66.79	May 29	j51.24	Feb. 25, 1959	j45.03
Feb. 25, 1957	j63.85	Nov. 27	j58.71	Aug. 27	j56.03		

j Water level below sea level.

11/5W-13N1. City of Oceanside. Near airport. Drilled unused artesian well in alluvium of Recent age, diam 14 in, depth 160 ft. Lsd 16.26 ft above msl. MP top of casing, 4.50 ft above lsd. Highest water level 1.61 below lsd, Mar. 15, 1943; lowest 30.50 below lsd, Jan. 6, 1958. Records available: 1939-60. Records furnished by city of Oceanside.

Jan. 9, 1956	j24.67	May 6, 1957	j25.17	Aug. 6, 1958	j18.00	Nov. 9, 1959	j22.17
Feb. 6	j23.67	June 3	j25.67	Sept. 2	j19.08	Dec. 7	j23.58
Mar. 6	j24.50	July 1	j26.58	Oct. 8	j19.75	Jan. 4, 1960	j21.50
Apr. 9	j25.58	Aug. 5	j27.42	Nov. 3	j19.50	Feb. 1	j20.67
May 7	j26.00	Sept. 3	j28.25	Dec. 1	j18.33	Mar. 7	j19.50
June 4	j26.50	Oct. 7	j27.83	Jan. 5, 1959	j19.08	Apr. 4	j20.25
July 6	j28.17	Nov. 4	j26.92	Feb. 2	j19.33	May 2	j30.42
Aug. 8	j28.15	Dec. 2	j27.67	Mar. 2	j20.58	June 6	j20.33
Sept. 6	j29.00	Jan. 6, 1958	j30.50	Apr. 6	j19.25	July 4	j22.08
Oct. 1	j29.42	Feb. 3	j25.42	May 4	j20.13	Aug. 1	j21.42
Dec. 3	j28.67	Mar. 3	j24.08	June 2	j18.67	Sept. 6	j21.17
Jan. 7, 1957	j27.67	Apr. 7	j22.42	July 6	j21.08	Oct. 3	j22.00
Feb. 4	j26.42	May 5	16.21	Aug. 6	j22.00	Nov. 7	j21.08
Mar. 4	j25.58	June 2	16.21	Sept. 7	j22.42	Dec. 5	j20.67
Apr. 1	j25.17	July 8	j16.33	Oct. 5	j22.00		

j Water level below sea level.

#### Otay River Basin

18/1W-19D1. W. Ellerson. Near Otay. Drilled domestic water-table well in marine sand and gravel of Pliocene age, diam 10 in, reported depth 182 ft, cased with steel. Lsd about 130 ft above msl. MP hole in west side of plate, 0.50 ft above lsd. Highest water level 55.40 below lsd, May 18, 1954; lowest 71.50 below lsd, Nov. 25, 1958. Records available: 1953-59. Measurement discontinued.

Feb. 21, 1956	61.50	Feb. 26, 1957	62.65	Nov. 26, 1957	70.85	Aug. 28, 1958	68.68
May 17	65.40	May 28	62.39	Feb. 24, 1958	64.39	Nov. 25	71.50
Aug. 31	66.45	Aug. 29	65.33	May 28	66.15	Feb. 25, 1959	71.48
Nov. 20	65.87						

18/2W-22F1. Western Aire Motel. Near Otay. Drilled domestic water-table well in alluvium of Recent age, diam 10 in, reported depth 150 ft, cased with steel. Lsd about 40 ft above msl. MP top of 2-in access pipe, 2.40 ft above lsd. Highest water level 18.40 below lsd, Apr. 10, 1922; lowest 48.30 below lsd, Dec. 6, 1955. Records available: 1916-60.

Feb. 21, 1956	j43.48	May 28, 1957	36.07	Aug. 28, 1958	39.00	Nov. 19, 1959	j41.30
May 17	j41.59	Aug. 29	j41.39	Nov. 25	39.95	Feb. 17, 1960	39.13
Aug. 31	j44.77	Nov. 26	j41.11	Feb. 25, 1959	39.10	May 23	39.75
Nov. 20	j47.17	Feb. 24, 1958	35.99	May 28	j40.30	Aug. 9	39.15
Feb. 26, 1957	38.95	May 28	37.10	Aug. 27	39.87	Nov. 17	j41.00

j Water level below sea level.

#### Sweetwater River Basin

17/1W-19Q2. California Water & Telephone Co. Near Sunnyside. Drilled unused water-table well in alluvium of Recent age, diam 12 in, depth 40 ft, cased with steel. Lsd about 85 ft above msl. MP top of 2-in coupling, 3.70 ft above lsd. Highest water level 1.51 below lsd, Dec. 23, 1943; lowest 38.29 below lsd, Dec. 28, 1949. Records available: 1943-59. Measurement discontinued.

Feb. 21, 1956	8.15	Feb. 26, 1957	5.22	Nov. 26, 1957	7.53	Aug. 28, 1958	5.97
May 17	8.05	May 28	5.30	Feb. 24, 1958	4.93	Nov. 25	5.02
Aug. 31	8.64	Aug. 29	7.04	May 28	4.85	Feb. 25, 1959	4.58
Nov. 20	9.17						

17/2W-35E1. Owner unknown. Near Chula Vista. Drilled domestic water-table well in alluvium of Recent age, diam 12 in, depth 58 ft, cased with steel. Lsd about 35 ft above msl. MP hole in pumpbase, 2.00 ft above lsd. Highest water level 8.62 below lsd, Nov. 10, 1954; lowest 15.29 below lsd, Nov. 19, 1959. Records available: 1953-60.

17/2W-35E1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 21, 1956	13.00	May 28, 1957	13.21	Aug. 28, 1958	13.50	Nov. 19, 1959	15.29
May 17	13.23	Aug. 29	14.34	Nov. 25	14.35	Feb. 17, 1960	10.15
Aug. 31	14.39	Nov. 26	14.38	Feb. 25, 1959	10.52	May 23	11.55
Nov. 20	14.49	Feb. 24, 1958	14.05	May 28	12.14	Aug. 9	11.70
Feb. 26, 1957	12.14	May 28	10.47	Aug. 27	14.60	Nov. 17	11.50

## Tia Juana River Basin

18/2W-33L1. Robert Egger. Near Nestor. Driven observation water-table well in alluvium of Recent age, diam 2 in, depth 29 ft, cased. Lsd 19.04 ft above msl. MP top of casing, 3.20 ft above lsd. Highest water level 5.16 below lsd, May 15, 1941; lowest 28.57 below lsd, Dec. 6, 1955. Records available: 1927-59. Measurement discontinued.

Feb. 21, 1956	j27.02	Feb. 26, 1957	j27.24	Nov. 26, 1957	j25.89	Aug. 28, 1958	j24.17
May 17	j26.42	May 28	j25.39	Feb. 24, 1958	j24.91	Nov. 25	j22.95
Aug. 31	j28.32	Aug. 29	j27.15	May 28	j20.85	Feb. 25, 1959	j21.70
Nov. 20	j28.26						

j Water level below sea level.

18/2W-34J1. C. Iguchi. Near Nestor. Driven observation water-table well in alluvium of Recent age, diam 2 in, depth 28 ft, cased. Lsd 30.97 ft above msl. MP top of casing, 3.00 ft above lsd. Highest water level 3.01 below lsd, Jan. 26, 1944; lowest 27.05 below lsd, Nov. 20, 1956. Records available: 1927-58. Measurement discontinued.

Feb. 21, 1956	25.97	Nov. 20, 1956	27.05	Aug. 29, 1957	25.82	May 28, 1958	26.10
May 17	26.22	Feb. 26, 1957	22.66	Nov. 26	26.00	Aug. 28	26.00
Aug. 31	26.34	May 28	26.30	Feb. 24, 1958	25.65	Nov. 25	25.85

19/2W-1N1. State of California. Near San Ysidro. Drilled observation water-table well in alluvium of Recent age, diam 8 in, depth 68 ft, cased with steel. Lsd about 50 ft above msl. MP top of casing, 2.50 ft above lsd. Highest water level 8.32 below lsd, May 18, 1954; lowest 34.73 below lsd, Nov. 17, 1960. Records available: 1953-60.

Feb. 21, 1956	15.98	May 28, 1957	19.11	Aug. 28, 1958	22.60	Nov. 19, 1959	28.67
May 17	15.34	Aug. 29	21.90	Feb. 25, 1959	25.35	Feb. 17, 1960	26.58
Aug. 31	18.67	Nov. 26	22.71	May 28	24.30	May 23	26.93
Nov. 20	21.38	Feb. 24, 1958	23.08	Aug. 27	27.13	Nov. 17	34.73
Feb. 26, 1957	19.10	May 28	18.60				

19/2W-4A6. California Water & Telephone Co. Near Nestor. Drilled unused artesian well in alluvium of Recent age, diam 12 in, depth 90 ft, cased with steel. Lsd about 25 ft above msl. MP top of plate on casing, 4.00 ft above lsd. Highest water level 19.87 below lsd, May 18, 1954; lowest 38.22 below lsd, Aug. 27, 1959. Records available: 1953-60.

Feb. 21, 1956	j34.00	May 28, 1957	j28.57	Aug. 28, 1958	j33.80	Nov. 19, 1959	j35.68
May 17	j30.76	Aug. 29	j32.80	Nov. 25	j32.00	Feb. 17, 1960	j30.60
Aug. 31	j33.60	Nov. 26	j31.99	Feb. 25, 1959	j29.58	May 23	j32.71
Nov. 20	j35.88	Feb. 24, 1958	j31.62	May 28	j33.52	Aug. 9	j35.25
Feb. 26, 1957	j32.52	May 28	24.99	Aug. 27	j38.22	Nov. 17	j35.00

j Water level below sea level.

## Borrego Valley Area

10S/6E-21A1. DiGiorgio Fruit Corp. North of Borrego. Drilled unused water-table well in alluvium of Pleistocene age, diam 12 in, depth 322 ft, cased with steel. Lsd about 664 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 130.55 below lsd, Jan. 3, 1953; lowest 174.2 below lsd, June 16, 1960. Records available: 1952-60. All measurements made by Surface Water Branch, U.S. Geol. Survey, from recorder charts, except as indicated.

June 24, 1952	h136.36	Mar. 16, 1955	149.4	May 3, 1956	157.8	May 27, 1957	162.7
Jan. 3, 1953	130.55	Apr. 14	c156.2	June 6	161.1	June 26	166.3
July 3	142.48	May 19	159.4	July 2	161.12	July 24	167.9
25	143.67	June 29	161.4	Aug. 2	162.0	Aug. 22	167.9
Aug. 3	142.78	July 20	160.8	Sept. 4	158.1	Sept. 26	160.5
Feb. 24, 1954	h138.79	Aug. 3	g160.2	Oct. 3	153.3	Nov. 6	155.6
Apr. 15	143.38	Sept. 20	157.9	Nov. 1	151.2	26	h154.04
Aug. 27	c153.7	Oct. 25	150.1	16	h149.99	Dec. 11	153.0
Oct. 21	148.7	Nov. 28	h148.12	Dec. 3	149.0	Jan. 7, 1958	152.1
Nov. 9	h147.68	29	147.0	Jan. 3, 1957	147.7	Feb. 11	153.5
19	147.3	Jan. 4, 1956	145.0	Feb. 4	149.4	Mar. 15	h153.94
Dec. 17	146.5	Feb. 7	148.2	Mar. 1	148.6	Mar.	152.1
Jan. 12, 1955	145.8	Mar. 8	151.2	15	h154.38	Apr. 21	161.0
Feb. 10	148.5	18	h153.20	27	156.3	May 5	161.5
Mar. 7	h149.70	Apr. 4	152.3	Apr. 25	161.5	June 23	167.3

10S/6E-21A1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 22, 1958	168.1	Mar. 19, 1959	155.9	Dec. 29, 1959	159.7	June 2, 1960	170.9
Aug. 14	169.0	Apr. 16	159.7	Jan. 13, 1960	161.5	16	174.2
Sept. 23	169.5	May 12	164.6	Feb. 11	164.3	30	173.0
Oct. 20	161.2	June 11	166.6	27	160.27	July 14	172.9
Nov. 5	h159.85	July 28	166.8	Mar. 8	159.3	Aug. 11	171.7
12	159.6	Aug. 11	170.2	23	159.8	Sept. 19	168.3
Dec. 3	g161.5	Sept. 8	174.0	Apr. 4	164.6	Oct. 21	166.7
Jan. 5, 1959	156.4	Oct. 6	163.9	21	167.7	Nov. 17	165.5
26	158.4	Nov. 10	161.3	May 2	172.4	22	165.33
Feb. 18	159.1	24	h161.31	17	171.7	Dec. 16	163.6
Mar. 12	h156.30	Dec. 10	161.3				

c Nearby well being pumped.

g Measurement made by California Dept. of Water Resources.

h Tape measurement.

11S/6E-11D2. Kosky and Hagenbuck. North of Borrego. Drilled unused water-table well in alluvium of Pleistocene age, diam 14 in, depth 218 ft, cased with steel. Lsd about 486 ft above msl. MP top of casing cover, 1.05 ft above lsd. Highest water level 17.53 below lsd, Nov. 16, 1953; lowest 37.91 below lsd, Nov. 5, 1958. Records available: 1953-60.

Nov. 16, 1953	17.53	Nov. 29, 1955	c45.18	Mar. 14, 1957	c57.84	Mar. 12, 1959	c56.89
Feb. 24, 1954	19.49	Mar. 18, 1956	24.07	Nov. 27	c57.48	Nov. 24	31.59
Nov. 8	c42.18	July 2	c49.0	Mar. 15, 1958	c51.48	Feb. 28, 1960	c62.74

Mar. 7, 1955	19.71	Nov. 16	25.37	Nov. 5	37.91	Nov. 22	33.96
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c Nearby well being pumped.

#### San Felipe Valley Area

12S/4E-24K1. Orville Cummings. San Felipe Ranch. Northeast of Julian. Drilled stock water-table well in alluvium of Pleistocene age, diam 12 in, depth 97 ft, cased. Lsd about 2,430 ft above msl. MP top of casing, 1.15 ft above lsd. Highest water level 18.48 below lsd, Nov. 24, 1953; lowest 30.56 below lsd, Nov. 22, 1960. Records available: 1953, 1956-60.

Nov. 24, 1953	18.43	Mar. 14, 1957	24.40	Mar. 12, 1959	27.74	Feb. 28, 1960	22.41
Mar. 19, 1956	23.30	Nov. 4, 1958	27.71	Nov. 24	b29.29	Nov. 22	30.56

b Well pumped recently.

#### Ocotillo Valley Area

12S/8E-22E1. A. F. Demes. South of Ocotillo. Drilled domestic and irrigation water-table well in alluvium of Pleistocene age, diam 16 in, depth about 226 ft, cased with steel. Lsd about 120 ft above msl. MP bottom edge southeast side of pumpbase, 1.40 ft above lsd. Highest water level 101.83 below lsd, Nov. 10, 1954; lowest 108.92 below lsd, Nov. 23, 1960. Records available: 1953-60.

Dec. 15, 1953	101.93	Nov. 29, 1955	101.89	Nov. 27, 1957	101.94	Nov. 24, 1959	108.56
Feb. 24, 1954	102.15	Mar. 18, 1956	102.17	Mar. 15, 1958	102.02	Feb. 23, 1960	c108.60
Nov. 10	101.83	Nov. 16	101.92	Nov. 4	105.61	Nov. 23	108.92
Mar. 6, 1955	101.89	Mar. 15, 1957	101.87	Mar. 12, 1959	105.86		

c Nearby well being pumped.

#### San Joaquin County

##### Mokelumne River Basin

3N/6-3K11. F. B. Mills Estate. About 1.8 mi west of Lodi. Drilled irrigation water-table well in Victor Formation of Pleistocene age, diam 12 in, depth 120 ft. Lsd 41.03 ft above msl. MP top southwest side of casing, 0.50 ft above lsd. Highest water level 10.95 below lsd, May 1, 1958; lowest 23.76 below lsd, Sept. 1, 1960. Records available: 1947-60.

Jan. 3, 1956	19.96	Feb. 1, 1957	19.44	Jan. 3, 1958	20.44	Dec. 1, 1958	17.07
Feb. 1	18.22	Mar. 1	19.44	Feb. 3	20.47	Jan. 2, 1959	17.13
Mar. 1	16.91	Apr. 1	19.98	Mar. 3	20.10	Feb. 2	17.86
Apr. 2	17.34	May 1	19.69	Apr. 1	18.56	Mar. 2	18.00
May 2	16.33	June 1	18.47	May 1	10.95	Apr. 1	18.33
June 1	16.69	July 1	(a)	June 2	14.53	May 1	18.25
Sept. 4	17.80	Aug. 1	23.10	July 1	18.60	June 1	(a)
Oct. 3	17.66	Sept. 3	21.36	Aug. 1	(a)	July 1	(a)
Nov. 1	17.71	Oct. 1	20.46	Sept. 2	16.75	Aug. 4	22.65
Dec. 3	16.38	Nov. 1	19.85	Oct. 1	16.67	Sept. 1	21.64
Jan. 3, 1957	19.25	Dec. 2	20.15	Nov. 3	17.19	Oct. 1	20.27

## 3N/6-3K11- -Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 3, 1959	19.74	Mar. 1, 1960	20.37	July 1, 1960	(a)	Oct. 3, 1960	22.50
Dec. 1	19.36	Apr. 1	20.60	Aug. 1	23.54	Nov. 1	22.35
Jan. 4, 1960	19.73	May 2	20.28	Sept. 1	23.76	Dec. 1	21.80
Feb. 1	19.27	June 1	(a)				

a Well being pumped.

3N/6-17D11. A. Delu. About 4.5 mi southwest of Lodi. Drilled irrigation water-table well in Victor Formation of Pleistocene age, diam 12 in, depth 93 ft. Lsd 23.80 ft above msl. MP top north side of casing, 10.60 ft below lsd. Highest water level 7.46 below lsd, May 1, 1952; lowest 26.40 below lsd, Aug. 1, Oct. 3, 1960. Records available: 1949-60.

Jan. 3, 1956	19.07	Apr. 1, 1957	17.11	Sept. 2, 1958	19.13	Nov. 3, 1959	21.19
Feb. 1	15.58	May 1	17.66	Oct. 1	18.48	Dec. 1	21.05
Mar. 1	12.89	June 1	17.32	Nov. 3	(a)	Jan. 4, 1960	20.23
Apr. 2	13.00	July 1	21.87	Dec. 1	16.49	Feb. 1	19.60
May 2	13.16	Aug. 1	j24.90	Jan. 2, 1959	15.86	Mar. 1	18.45
June 1	15.69	Sept. 3	j25.52	Feb. 2	15.35	Apr. 1	18.05
July 2	19.39	Oct. 1	j24.00	Mar. 2	14.84	May 2	(a)
Aug. 1	22.73	Nov. 1	21.88	Apr. 1	14.37	June 1	(a)
Sept. 4	23.16	Dec. 2	20.67	May 1	16.25	July 1	(a)
Oct. 3	21.13	Jan. 3, 1958	19.83	June 1	(a)	Aug. 1	j26.40
Nov. 1	19.88	Feb. 3	18.94	July 1	21.38	Sept. 1	(a)
Dec. 3	18.83	Mar. 3	16.74	Aug. 4	j25.46	Oct. 3	j26.40
Jan. 4, 1957	18.13	Apr. 1	13.69	Sept. 1	j25.00	Nov. 1	j24.54
Feb. 1	17.68	July 1	14.37	Oct. 1	22.63	Dec. 1	23.13
Mar. 1	17.32	Aug. 1	16.97				

a Well being pumped.

j Water level below sea level.

3N/6-25R11. E. E. Morse Estate. About 4.4 mi south of Lodi. Drilled domestic water-table well in Victor Formation of Pleistocene age, diam 10 in, depth 93 ft. Lsd 40.55 ft above msl. MP lower edge of pumpbase, at slot, 0.50 ft above lsd. Highest water level 26.15 below lsd, Jan. 5, 1953; lowest 44.86 below lsd, Oct. 5, 1960. Records available: 1948-60.

Jan. 4, 1956	33.64	Oct. 4, 1957	38.85	Jan. 2, 1959	29.11	Jan. 5, 1960	36.87
Oct. 5	33.27	Jan. 3, 1958	35.37	Oct. 5	39.81	Oct. 5	j44.86
Jan. 4, 1957	30.93	Oct. 3	32.37				

j Water level below sea level.

3N/6-36R2. Leland W. Bunch. About 5.5 mi south of Lodi. Drilled domestic water-table well in Victor Formation of Pleistocene age, diam 8 in, depth 85 ft. Lsd 37.97 ft above msl. MP arrow on floor of concrete pit, 7.60 ft below lsd. Highest water level 11.72 below lsd, Apr. 8, 1938; lowest 44.20 below lsd, Oct. 5, 1960. Records available: 1926-29, 1935-60.

Jan. 4, 1956	31.17	Apr. 1, 1957	29.03	July 1, 1958	24.80	Oct. 5, 1959	35.79
Feb. 1	28.27	May 1	30.08	Aug. 1	(a)	Nov. 3	36.41
Mar. 1	27.04	June 1	31.72	Sept. 2	28.75	Dec. 1	36.51
Apr. 2	27.43	July 1	(a)	Oct. 3	29.32	Jan. 5, 1960	36.05
May 2	27.77	Aug. 1	36.91	Nov. 3	28.74	Feb. 1	35.54
June 1	28.50	Sept. 3	37.63	Dec. 1	27.69	Mar. 1	35.12
July 2	a30.12	Oct. 4	37.84	Jan. 2, 1959	27.19	Apr. 1	35.45
Aug. 1	30.87	Nov. 1	36.19	Feb. 2	27.00	May 2	37.74
Sept. 4	30.00	Dec. 2	34.78	Mar. 2	26.58	June 1	j39.58
Oct. 5	30.18	Jan. 6, 1958	34.17	Apr. 1	27.14	July 1	j41.75
Nov. 1	30.04	Feb. 3	33.45	May 1	28.18	Aug. 1	(a)
Dec. 3	29.20	Mar. 3	31.59	June 1	(a)	Sept. 1	j43.58
Jan. 3, 1957	29.05	Apr. 1	28.47	July 1	34.40	Oct. 5	j44.20
Feb. 1	29.09	May 1	21.46	Aug. 4	37.83	Nov. 1	j43.76
Mar. 1	29.14	June 2	23.34	Sept. 1	j39.80	Dec. 1	j41.09

a Well being pumped.

j Water level below sea level.

3N/7-3C1. Jacob Knoll. About 4.0 mi east of Lodi. Drilled observation water-table well in Victor Formation of Pleistocene age, diam 8 in, depth 48 ft, cased to 48, perforated 38-48. Lsd 80.45 ft above msl. MP top of casing, 1.40 ft above lsd. Highest water level 25.31 below lsd, June 2, 1943; lowest 44.94 below lsd, Dec. 1, 1960. Records available: 1935-60.

Jan. 5, 1956	41.94	May 2, 1956	38.38	Sept. 4, 1956	37.56	Jan. 5, 1957	39.54
Feb. 1	39.56	June 1	36.61	Oct. 8	38.46	Feb. 1	38.90
Mar. 1	38.49	July 2	35.10	Nov. 1	38.89	Mar. 1	40.32
Apr. 2	38.33	Aug. 1	36.20	Dec. 3	39.22	Apr. 1	40.37

## 3N/7-3C1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 1, 1957	40.28	May 1, 1958	37.83	Apr. 1, 1959	40.38	Feb. 1, 1960	43.62
June 1	39.89	June 2	35.96	May 1	40.22	Mar. 1	43.59
July 1	36.75	July 1	34.60	June 1	40.54	Apr. 1	43.72
Aug. 1	39.37	Aug. 1	35.80	July 1	37.78	May 2	39.92
Sept. 3	40.71	Sept. 2	37.00	3	38.04	June 1	40.19
Oct. 7	41.56	Oct. 7	37.97	Aug. 4	40.35	July 1	41.56
Nov. 1	41.92	Nov. 3	38.54	Sept. 1	41.55	Aug. 1	42.95
Dec. 2	42.16	Dec. 1	39.13	Oct. 6	42.19	Sept. 1	43.85
Jan. 6, 1958	42.32	Jan. 6, 1959	39.77	Nov. 3	42.64	Oct. 6	44.39
Feb. 3	42.28	Feb. 2	40.16	Dec. 1	43.00	Nov. 1	44.68
Mar. 3	42.02	Mar. 2	40.42	Jan. 6, 1960	43.43	Dec. 1	44.94
Apr. 1	41.25						

3N/7-6M8. R. E. and Ruth F. Coker. About 215 ft east of Cherokee Lane and 2 ft north of Southern Pacific RR, right-of-way. Lodi. Drilled observation water-table well in Victor Formation of Pleistocene age, diam 4 in, depth 40 ft, cased to 40, perforated 30-40. Lsd 53.35 ft above msl. MP top of casing, 0.40 ft above lsd. Highest water level 17.82 below lsd, Apr. 30, 1943; lowest dry, May 1, 1959 through 1960. Records available: 1935-60.

Feb. 1, 1956	25.20	June 1, 1957	27.64	Sept. 2, 1958	23.46	Nov. 3, 1959	(f)
Mar. 1	24.17	July 1	(f)	Oct. 3	24.32	Dec. 1	(f)
Apr. 2	24.59	Aug. 1	26.93	Nov. 3	24.96	Jan. 5, 1960	(f)
May 2	25.32	Sept. 3	26.96	Dec. 1	24.82	Feb. 1	(f)
June 1	25.25	Oct. 4	26.91	Jan. 2, 1959	24.73	Mar. 1	(f)
July 2	25.03	Nov. 1	(f)	Feb. 2	24.81	April 1	(f)
Aug. 1	24.80	Dec. 2	27.70	Mar. 2	24.64	May 2	(f)
Sept. 4	24.95	Jan. 3, 1958	27.60	Apr. 1	26.25	June 1	(f)
Oct. 5	25.38	Feb. 3	27.25	May 1	(f)	July 1	(f)
Nov. 1	25.85	Mar. 3	26.36	June 1	(f)	Aug. 1	(f)
Dec. 3	26.04	Apr. 1	25.10	July 1	(f)	Sept. 1	(f)
Jan. 4, 1957	26.18	May 1	22.46	Aug. 4	(f)	Oct. 5	(f)
Feb. 1	26.31	June 2	22.59	Sept. 1	(f)	Nov. 1	(f)
Mar. 1	27.14	July 1	23.13	Oct. 5	(f)	Dec. 1	(f)
Apr. 1	26.75	Aug. 1	22.78				

f Dry.

3N/7-7M1. J. and Rachel K. Goetken. East of Cherokee Lane. Lodi. Drilled irrigation water-table well in Victor Formation of Pleistocene age, diam 10 in, depth 49 ft. Lsd 52.63 ft above msl. MP top of 2-in floor flange, 0.10 ft above lsd. Highest water level 24.51 below lsd, Apr. 6, 1938; lowest 42.52 below lsd, May 1, 1950. Records available: 1935-60.

Jan. 4, 1956	35.72	Apr. 1, 1957	34.30	July 1, 1958	33.35	Oct. 5, 1959	37.45
Feb. 1	34.38	May 1	39.03	Aug. 1	34.92	Nov. 3	36.97
Mar. 1	33.33	June 1	37.70	Sept. 2	33.84	Dec. 1	36.67
Apr. 2	34.99	July 1	38.58	Oct. 3	33.52	Jan. 5, 1960	36.34
May 2	37.93	Aug. 1	39.52	Nov. 3	32.56	Feb. 1	35.88
June 1	35.12	Sept. 3	38.52	Dec. 1	32.12	Mar. 1	35.65
July 2	36.72	Oct. 4	37.76	Jan. 2, 1959	31.98	April 1	38.80
Aug. 1	36.62	Nov. 1	36.75	Feb. 2	31.48	May 2	41.08
Sept. 4	35.72	Dec. 2	35.98	Mar. 2	31.24	June 1	42.33
Oct. 5	34.98	Jan. 3, 1958	35.43	Apr. 1	35.19	July 1	42.40
Nov. 1	34.15	Feb. 3	34.81	May 1	37.84	Aug. 1	41.60
Dec. 3	33.36	Mar. 3	34.24	June 1	37.67	Sept. 1	41.22
Jan. 4, 1957	32.93	Apr. 1	33.39	July 1	39.34	Oct. 5	40.47
Feb. 1	32.98	May 1	32.61	Aug. 4	39.44	Nov. 1	40.22
Mar. 1	32.77	June 2	32.50	Sept. 1	38.66	Dec. 1	39.28

3N/7-10L3. Edward Preszler. About 4.0 mi east of Lodi. Drilled observation water-table well in Victor Formation of Pleistocene age, diam 10 in, depth 57 ft, cased to 57, perforated 47-57. Lsd 72.59 ft above msl. MP top of casing, 1.20 ft above lsd. Highest water level 35.33 below lsd, Jan. 12, 1939; lowest 68.44 below lsd, Aug. 1, 1960. Records available: 1935-60.

Jan. 6, 1956	47.97	Oct. 8, 1956	45.60	July 1, 1957	44.42	Apr. 1, 1958	48.80
Feb. 1	48.29	Nov. 1	46.29	Aug. 1	43.90	May 1	44.22
Mar. 1	48.64	Dec. 3	47.24	Sept. 3	44.76	June 2	44.82
Apr. 2	48.93	Jan. 5, 1957	48.00	Oct. 7	45.42	July 1	45.26
May 2	42.29	Feb. 1	48.44	Nov. 1	46.29	Aug. 1	44.26
June 1	42.98	Mar. 1	48.87	Dec. 2	47.80	Sept. 2	44.78
July 2	43.50	Apr. 1	49.34	Jan. 6, 1958	48.07	Oct. 7	45.64
Aug. 1	43.91	May 1	(f)	Feb. 3	48.43	15	45.91
Sept. 4	44.84	June 1	44.20	Mar. 3	48.72	Nov. 3	46.40

3N/7-10L3--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 1, 1958	47.06	July 1, 1959	c43.85	Jan. 6, 1960	47.95	July 1, 1960	66.70
Jan. 6, 1959	47.63	Aug. 4	43.05	Feb. 1	48.54	Aug. 1	68.44
Feb. 2	47.98	Sept. 1	43.89	Mar. 1	49.05	Sept. 1	68.40
Mar. 2	48.15	Oct. 6	45.06	Apr. 1	(f)	Oct. 6	66.89
Apr. 1	c48.67	Nov. 3	45.95	May 2	45.54	Nov. 1	65.18
May 1	43.15	Dec. 1	47.07	June 1	45.20	Dec. 1	63.16
June 1	43.39						

c Nearby well being pumped.

f Dry.

3N/7-10L4. Edward Preszler. About 4.0 mi east of Lodi. Drilled observation water-table well in Victor Formation of Pleistocene age, Arroyo Seco Gravel of Pleistocene age, and Laguna Formation of Pliocene (?) age, diam 12 to 10 in., depth 190 ft, cased to 190. Lsd 72.37 ft above msl. MP top of 2-in. plain support, 0.87 ft above lsd. Highest water level 35.13 below lsd, Jan. 12, 1939; lowest 70.87 below lsd, July 1, 1960. Records available: 1935-51.

Jan. 6, 1956	54.03	Apr. 1, 1957	52.90	July 1, 1958	59.87	Oct. 6, 1959	61.35
Feb. 1	52.91	May 1	59.93	Aug. 1	62.61	Nov. 3	59.84
Mar. 1	51.87	June 1	58.69	Sept. 2	59.71	Dec. 1	58.53
Apr. 2	54.11	July 1	63.76	Oct. 7	56.58	Jan. 6, 1960	57.42
May 2	58.52	Aug. 1	66.71	Nov. 3	54.75	Feb. 1	56.43
June 1	58.46	Sept. 3	64.21	Dec. 1	54.06	Mar. 1	56.41
July 2	60.86	Oct. 7	60.06	Jan. 6, 1959	52.91	Apr. 1	63.56
Aug. 1	62.69	Nov. 1	58.09	Feb. 2	52.01	May 2	67.05
Sept. 4	59.81	Dec. 2	56.66	Mar. 2	51.53	June 1	66.13
Oct. 8	56.92	Jan. 6, 1958	55.43	Apr. 1	(a)	July 1	70.87
Nov. 1	55.09	Feb. 3	54.48	May 1	64.32	Aug. 1	(a)
Dec. 3	53.48	Mar. 3	53.57	June 1	61.63	Sept. 1	70.33
Jan. 5, 1957	52.64	Apr. 1	52.78	July 1	(a)	Oct. 6	66.18
Feb. 1	52.13	May 1	53.01	Aug. 4	69.30	Nov. 1	64.43
Mar. 1	52.46	June 2	54.70	Sept. 1	65.21	Dec. 1	62.24

a Well being pumped.

3N/7-18N12. Joe Garner. About 2.5 mi south of Lodi. Drilled domestic water-table well in Victor Formation of Pleistocene age, diam 6 in., depth 78 ft. Lsd 47.44 ft above msl. MP top east side of casing, 0.30 ft above lsd. Highest water level 29.86 below lsd, Feb. 2, 1953; lowest 47.67 below lsd, July 1, 1960. Records available: 1946-60.

Jan. 4, 1956	36.42	Apr. 1, 1957	33.72	July 1, 1958	38.56	Oct. 5, 1959	38.73
Feb. 1	35.61	May 1	36.57	Aug. 1	38.61	Nov. 3	37.98
Mar. 1	34.46	June 1	38.33	Sept. 2	35.23	Dec. 1	37.52
Apr. 2	34.19	July 1	42.33	Oct. 3	33.30	Jan. 5, 1960	37.54
May 2	36.65	Aug. 1	43.30	Nov. 3	32.54	Feb. 1	36.93
June 1	37.31	Sept. 4	41.01	Dec. 1	32.67	Mar. 1	36.55
July 2	39.50	Oct. 5	39.25	Jan. 2, 1959	33.18	Apr. 1	37.64
Aug. 1	40.33	Nov. 1	38.25	Feb. 2	32.73	May 2	41.73
Sept. 4	38.49	Dec. 2	37.58	Mar. 2	33.26	June 1	44.17
Oct. 5	36.33	Jan. 3, 1958	36.68	Apr. 1	34.15	July 1	j47.67
Nov. 1	35.13	Feb. 3	35.98	May 1	37.12	Aug. 1	46.86
Dec. 3	34.13	Mar. 3	35.50	June 1	39.51	Sept. 1	44.62
Jan. 4, 1957	33.53	Apr. 1	34.72	July 1	42.22	Oct. 5	42.70
Feb. 1	33.96	May 1	32.59	Aug. 4	42.11	Nov. 1	41.96
Mar. 1	34.18	June 2	32.85	Sept. 1	40.20	Dec. 1	41.14

j Water level below sea level.

3N/7-22C11. John Nietzschke. About 4.6 mi southeast of Lodi. Drilled domestic water-table well, largely in Victor Formation of Pleistocene age, but probably penetrating into underlying Arroyo Seco Gravel of Pleistocene age, and Laguna Formation of Pliocene (?) age, diam 8 in., depth 137 ft. Lsd 66.43 ft above msl. MP top southeast side of casing, 0.80 ft above lsd. Highest water level 50.21 below lsd, Mar. 2, 1953; lowest 73.99 below lsd, Sept. 1, 1960. Records available: 1952-60.

Jan. 6, 1956	60.08	Nov. 1, 1956	60.94	Sept. 3, 1957	j68.56	July 1, 1958	61.46
Feb. 1	58.12	Dec. 3	59.26	Oct. 7	65.73	Aug. 1	64.08
Mar. 1	57.48	Jan. 5, 1957	58.55	Nov. 1	63.87	Sept. 2	63.23
Apr. 2	57.70	Feb. 1	58.86	Dec. 2	62.13	Oct. 6	60.97
May 2	59.85	Mar. 1	55.93	Jan. 6, 1958	60.64	Nov. 3	59.43
June 1	c64.83	Apr. 1	55.64	Feb. 3	59.39	Dec. 1	58.33
July 2	62.99	May 1	58.68	Mar. 3	58.38	Jan. 6, 1959	56.73
Aug. 1	65.17	June 1	60.57	Apr. 1	57.28	Feb. 2	55.73
Sept. 4	65.44	July 1	64.86	May 1	56.74	Mar. 2	54.66
Oct. 8	62.63	Aug. 1	j68.41	June 2	(a)	Apr. 1	58.73

## 3N/7-22C11--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 1, 1959	61.78	Oct. 6, 1959	j66.55	Mar. 1, 1960	60.20	Aug. 1, 1960	j73.38
June 1	(a)	Nov. 3	65.13	Apr. 1	62.09	Sept. 1	j73.99
July 1	j67.10	Dec. 1	63.72	May 2	65.76	Oct. 6	j70.55
Aug. 4	j70.25	Jan. 6, 1960	62.08	June 1	j67.90	Nov. 1	j69.06
Sept. 1	j69.93	Feb. 1	60.88	July 1	j70.94	Dec. 1	j67.33

a Well being pumped.

c Nearby well being pumped.

j Water level below sea level.

3N/7-27F3. John F. Heitzmann. About 5.5 mi southeast of Lodi. Drilled observation water-table well in Victor Formation of Pleistocene age, diam 8 in, depth 46 ft, deepened in May 1949 to 91 ft, cased to 63. Lsd 59.42 ft above msl. MP top of casing, 1.70 ft above lsd. Highest water level 26.12 below lsd, Mar. 31, 1943; lowest 67.25 below lsd, Sept. 1, 1960. Records available: 1935-60.

Jan. 5, 1956	58.04	Apr. 1, 1957	52.39	July 1, 1958	55.26	Oct. 6, 1959	j62.95
Feb. 1	56.82	May 1	52.85	Aug. 1	57.50	Nov. 3	j62.33
Mar. 1	55.16	June 1	55.35	Sept. 2	j60.28	Dec. 1	j61.63
Apr. 2	54.31	July 1	58.35	Oct. 6	j59.75	Jan. 6, 1960	j59.49
May 2	54.50	Aug. 1	j63.47	Nov. 3	56.63	Feb. 1	59.30
June 1	55.56	Sept. 3	j63.07	Dec. 1	56.39	Mar. 1	58.40
July 2	58.72	Oct. 7	j62.15	Jan. 6, 1959	53.40	Apr. 1	57.45
Aug. 1	j61.05	Nov. 1	j60.70	Feb. 2	52.17	May 2	58.98
Sept. 4	j62.79	Dec. 2	59.36	Mar. 2	51.00	June 1	j61.35
Oct. 8	j60.83	Jan. 6, 1958	57.95	Apr. 1	50.39	July 1	j64.10
Nov. 1	j59.45	Feb. 3	56.76	May 1	52.77	Aug. 1	j65.70
Dec. 3	57.67	Mar. 3	55.67	June 1	55.08	Sept. 1	j67.25
Jan. 4, 1957	56.06	Apr. 1	54.14	July 1	j59.68	Oct. 6	j66.03
Feb. 1	54.77	May 1	53.85	Aug. 4	j62.84	Nov. 1	j65.19
Mar. 1	53.64	June 2	54.65	Sept. 1	54.48	Dec. 1	j64.18

j Water level below sea level.

4N/6-12R11. A. T. Carlson. About 4.5 mi north of Lodi. Drilled domestic and irrigation water-table well in Victor, Arroyo Seco, and Laguna Formations, diam 8 in, reported depth 150 ft. Lsd 57.95 ft above msl. MP lower edge of 1½-in pipe in concrete pump foundation, 0.60 ft above lsd. Highest water level 38.84 below lsd, May 1, 1952; lowest 69.25 below lsd, Sept. 1, 1960. Records available: 1948-60.

Jan. 4, 1956	50.28	Apr. 1, 1957	47.10	July 1, 1958	55.65	Oct. 5, 1959	j61.37
Feb. 1	48.73	May 1	50.72	Aug. 1	j58.03	Nov. 3	j60.26
Mar. 1	46.96	June 1	52.69	Sept. 2	j59.07	Dec. 1	56.34
Apr. 2	47.10	July 1	57.38	Oct. 3	57.37	Jan. 5, 1960	54.15
May 2	48.23	Aug. 1	j61.27	Nov. 3	55.47	Feb. 1	52.47
June 1	52.64	Sept. 3	j62.58	Dec. 1	53.92	Mar. 1	51.48
July 2	j58.54	Oct. 4	j59.59	Jan. 2, 1959	48.67	Apr. 1	53.52
Aug. 1	j61.20	Nov. 1	56.72	Feb. 2	47.45	May 2	55.19
Sept. 4	j60.14	Dec. 2	52.81	Mar. 2	46.28	June 1	j60.29
Oct. 5	j58.55	Jan. 3, 1958	50.63	Apr. 1	49.87	July 1	j65.00
Nov. 1	53.39	Feb. 3	49.08	May 1	53.00	Aug. 1	j67.60
Dec. 3	52.79	Mar. 3	48.01	June 1	55.60	Sept. 1	j69.25
Jan. 4, 1957	49.21	Apr. 1	46.68	July 1	j59.31	Oct. 5	j67.97
Feb. 1	48.09	May 1	49.65	Aug. 4	j64.09	Nov. 1	j66.33
Mar. 1	46.54	June 2	50.82	Sept. 1	j64.30	Dec. 1	j60.22

j Water level below sea level.

4N/6-36D1. D. D. Smith and S. H. and I. Zimmerman. About 1.6 mi north of Lodi. Drilled unused water-table well in Victor Formation of Pleistocene age, diam 6 in, depth 35 ft. Lsd 49.90 ft above msl. MP top of casing, 0.16 ft below lsd. Highest water level 15.02 below lsd, Mar. 31, 1943; lowest dry at 35.00 below lsd, May 1, 1946. Records available: 1926-29, 1935-60.

Jan. 4, 1956	24.03	Dec. 3, 1956	23.45	Nov. 1, 1957	24.59	Oct. 2, 1958	21.59
Feb. 1	22.12	Jan. 4, 1957	24.19	Dec. 2	24.92	Nov. 3	21.62
Mar. 1	21.80	Feb. 1	24.25	Jan. 3, 1958	25.39	Dec. 1	21.70
Apr. 2	21.21	Mar. 1	24.55	Feb. 3	25.30	Jan. 2, 1959	22.00
May 2	21.67	Apr. 1	23.52	Mar. 3	24.62	Feb. 2	22.78
June 1	26.23	May 1	23.96	Apr. 1	23.28	Mar. 2	22.57
July 2	24.95	June 1	c29.61	May 1	17.93	Apr. 1	26.64
Aug. 1	24.42	July 1	27.51	June 2	23.72	May 1	28.83
Sept. 4	22.85	Aug. 1	27.99	July 1	23.56	June 1	28.46
Oct. 4	22.45	Sept. 3	25.28	Aug. 1	22.03	July 1	28.03
Nov. 1	22.60	Oct. 2	24.74	Sept. 2	21.51	Aug. 4	28.30

4N/6-36D1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 1, 1959	26.16	Jan. 5, 1960	25.18	May 2, 1960	29.40	Sept. 1, 1960	28.42
Oct. 2	25.81	Feb. 1	25.81	June 1	30.76	Oct. 4	27.50
Nov. 3	25.70	Mar. 1	26.09	July 1	30.98	Nov. 1	27.63
Dec. 1	25.40	Apr. 1	25.52	Aug. 1	30.46	Dec. 1	28.16

c Nearby well being pumped.

4N/7-15B3. Robert L. Carter. About 6.0 mi northeast of Lodi. Drilled observation water-table well in Victor Formation of Pleistocene age, diam 8 in, depth 85 ft, cased to 69. Lsd 92.05 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 32.11 below lsd, Sept. 1, 1939; lowest dry several times, 1957-59. Records available: 1935-59. Well abandoned; measurement discontinued.

Jan. 6, 1956	j57.44	Dec. 3, 1956	71.58	Dec. 2, 1957	73.09	Dec. 1, 1958	73.49
27	j57.76	Jan. 8, 1957	70.42	Jan. 7, 1958	71.96	Jan. 8, 1959	72.09
Feb. 1	j58.16	Feb. 1	69.73	Feb. 3	70.88	Feb. 2	71.21
Mar. 1	67.29	Mar. 1	68.98	Mar. 3	j56.70	Mar. 2	j59.35
Apr. 2	j58.10	Apr. 1	68.17	Apr. 1	j55.26	Apr. 1	70.21
May 2	68.01	May 1	68.99	May 1	69.23	May 1	69.15
June 1	69.27	June 1	69.57	June 2	70.55	June 1	(f)
July 2	73.14	July 1	73.73	July 1	73.45	July 1	(f)
Aug. 1	75.04	Aug. 1	(f)	Aug. 1	(f)	Aug. 4	j65.54
Sept. 4	75.82	Sept. 3	(f)	Sept. 2	(f)	Sept. 1	j59.57
Oct. 9	74.75	Oct. 8	75.48	Oct. 7	(f)	Oct. 7	(f)
Nov. 1	73.23	Nov. 1	74.18	Nov. 3	74.62	Nov. 3	(f)

f Dry.

j Water leaking into well.

4N/7-22Q4. Adolphus Eddlemon. About 4.9 mi northeast of Lodi. Drilled observation water-table well in Victor Formation of Pleistocene age, and underlying unclassified sand and gravel, diam 10 in, depth 51 ft, cased to 51, perforated 39-49. Lsd 83.61 ft above msl. MP top of casing, 0.80 ft above lsd. Highest water level 35.95 below lsd, Apr. 30, 1943; lowest 67.43 below lsd, Sept. 1, 1960. Records available: 1935-60.

Jan. 6, 1956	(f)	Apr. 1, 1957	(f)	July 1, 1958	(f)	Oct. 6, 1959	(f)
Feb. 1	(f)	May 1	(f)	Aug. 1	(f)	Nov. 3	(f)
Mar. 1	(f)	June 1	(f)	Sept. 2	(f)	Dec. 1	(f)
Apr. 2	(f)	July 1	(f)	Oct. 7	(f)	Jan. 7, 1960	(f)
May 2	(f)	Aug. 1	(f)	Nov. 3	(f)	Feb. 1	(f)
June 1	(f)	Sept. 3	(f)	Dec. 1	(f)	Mar. 1	(f)
July 2	(f)	Oct. 8	(f)	Jan. 8, 1959	(f)	Apr. 1	(f)
Aug. 1	(f)	Nov. 1	(f)	Feb. 2	(f)	May 2	(f)
Sept. 4	(f)	Dec. 2	(f)	Mar. 2	(f)	June 1	(f)
Oct. 9	(f)	Jan. 7, 1958	(f)	Apr. 1	(f)	July 1	64.49
Nov. 1	(f)	Feb. 3	(f)	May 1	(f)	Aug. 1	66.84
Dec. 3	(f)	Mar. 3	(f)	June 1	(f)	Sept. 1	67.43
Jan. 8, 1957	(f)	Apr. 1	(f)	July 1	(f)	Oct. 7	65.85
Feb. 1	(f)	May 1	(f)	Aug. 4	(f)	Nov. 1	64.74
Mar. 1	(f)	June 2	(f)	Sept. 1	(f)	Dec. 1	63.26

f Dry.

4N/7-22Q5. Adolphus Eddlemon. About 4.9 mi northeast of Lodi. Drilled observation artesian well in Victor, Arroyo Seco, and Laguna Formations, diam 10 in, depth 266 ft, cased 0-79, 129-149. Lsd 83.83 ft above msl. MP top of casing, 0.20 ft above lsd. Highest water level 36.34 below lsd, Mar. 31, 1943; lowest 71.90 below lsd, July 1, 1960. Records available: 1935-60.

Jan. 6, 1956	54.90	Apr. 1, 1957	52.92	July 1, 1958	63.01	Oct. 6, 1959	62.60
Feb. 1	53.72	May 2	c59.57	Aug. 1	61.68	Nov. 3	61.55
Mar. 1	52.60	June 1	59.53	Sept. 2	60.23	Dec. 1	60.38
Apr. 2	54.56	July 1	65.32	Oct. 7	57.91	Jan. 7, 1960	59.22
May 2	58.19	Aug. 1	c67.64	Nov. 3	56.40	Feb. 1	58.40
June 1	57.34	Sept. 3	63.35	Dec. 1	55.55	Mar. 1	58.05
July 2	62.40	Oct. 8	60.17	Jan. 8, 1959	54.50	Apr. 1	58.48
Aug. 1	63.36	Nov. 1	58.67	Feb. 2	54.00	May 2	66.89
Sept. 4	59.74	Dec. 2	57.47	Mar. 2	53.40	June 1	68.60
Oct. 9	57.44	Jan. 7, 1958	56.33	Apr. 1	55.16	July 1	71.90
Nov. 1	56.12	Feb. 3	55.48	May 1	c64.55	Aug. 1	71.76
Dec. 3	54.66	Mar. 3	54.69	June 1	c63.83	Sept. 1	70.70
Jan. 8, 1957	53.78	Apr. 1	53.66	July 1	67.82	Oct. 7	67.70
Feb. 1	53.37	May 1	53.12	Aug. 4	c68.43	Nov. 1	66.30
Mar. 1	52.93	June 2	c57.26	Sept. 1	c67.18	Dec. 1	64.16

c Nearby well being pumped.

4N/7-27P1. Frank H. and Leonard W. Buck. About 4.4 mi northeast of Lodi. Drilled observation water-table well in Victor Formation of Pleistocene age, diam 10 in, depth 49 ft, cased to 49, perforated 39-49. Lsd 81.20 ft above msl. MP top of casing, 0.90 ft above lsd. Highest water level 24.60 below lsd, June 3, 1938; lowest 40.79 below lsd, Dec. 1, 1960. Records available: 1935-60.

Date	Water level						
Jan. 6, 1956	33.66	Apr. 1, 1957	36.43	July 1, 1958	29.50	Oct. 6, 1959	39.41
Feb. 1	30.75	May 1	36.85	Aug. 1	33.79	Nov. 3	39.74
Mar. 1	32.20	June 1	36.83	Sept. 2	35.80	Dec. 1	39.97
Apr. 2	33.25	July 1	35.11	Oct. 7	36.32	Jan. 7, 1960	40.17
May 2	33.50	Aug. 1	37.12	Nov. 3	36.55	Feb. 1	40.10
June 1	30.13	Sept. 3	37.84	Dec. 1	37.13	Mar. 1	40.08
July 2	30.98	Oct. 8	38.07	Jan. 8, 1959	37.77	Apr. 1	39.90
Aug. 1	34.50	Nov. 1	38.12	Feb. 2	38.18	May 2	40.28
Sept. 4	36.37	Dec. 2	38.05	Mar. 2	37.53	June 1	40.31
Oct. 9	36.72	Jan. 7, 1958	37.98	Apr. 1	37.13	July 1	40.15
Nov. 1	36.74	Feb. 3	37.48	May 1	38.61	Aug. 1	40.45
Dec. 3	36.48	Mar. 3	36.09	June 1	38.67	Sept. 1	39.92
Jan. 8, 1957	36.66	Apr. 1	33.37	July 1	39.14	Oct. 7	40.59
Feb. 1	37.18	May 1	30.99	Aug. 4	39.60	Nov. 1	40.76
Mar. 1	37.85	June 2	30.15	Sept. 1	39.50	Dec. 1	40.79

4N/7-30E4. Charles Weber. About 2.5 mi north of Lodi. Drilled unused water-table well in Victor Formation of Pleistocene age, diam 6 in, depth 76 ft. Lsd 57.18 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 26.35 below lsd, Jan. 4, 1944; lowest 51.96 below lsd, Aug. 1, 1960. Records available: 1941-60.

Jan. 4, 1956	38.76	May 1, 1957	38.54	Aug. 1, 1958	38.98	Oct. 5, 1959	41.16
Feb. 1	37.47	June 1	37.87	Sept. 2	36.78	Nov. 3	40.23
Mar. 1	36.02	July 1	42.82	Oct. 3	34.95	Dec. 1	39.73
Apr. 2	35.06	Aug. 1	43.91	Nov. 3	34.12	Jan. 5, 1960	39.21
May 2	37.78	Sept. 3	43.09	Dec. 1	34.30	Feb. 1	38.32
June 1	37.35	Oct. 4	40.81	Jan. 2, 1959	33.79	Mar. 1	38.05
July 2	41.37	Nov. 1	39.52	Feb. 2	33.35	Apr. 1	37.99
Aug. 1	41.44	Dec. 2	38.56	Mar. 2	33.00	May 1	44.20
Sept. 4	41.62	Jan. 3, 1958	37.76	Apr. 1	34.32	June 1	44.13
Oct. 5	37.27	Feb. 3	37.13	May 1	40.02	July 1	48.34
Nov. 1	36.42	Mar. 3	36.64	4	40.69	Aug. 1	51.96
Dec. 3	35.70	Apr. 1	(j)	June 1	40.07	Sept. 1	46.92
Jan. 4, 1957	35.63	May 1	33.09	July 1	42.81	Oct. 5	44.82
Feb. 1	35.18	June 2	36.66	Aug. 4	43.97	Nov. 1	43.99
Mar. 1	34.80	July 1	37.07	Sept. 1	43.00	Dec. 1	43.26
Apr. 1	34.88						

j Water leaking into well.

4N/7-31N5. Jacob Goehring. About 1.0 mi northeast of Lodi. Drilled observation water-table well in alluvium, diam 4 in, depth 25 ft, cased to 25, perforated 15-25. Lsd 44.12 ft above msl. MP top of casing, 2.90 ft above lsd. Highest water level 1.73 below lsd, Apr. 30, 1943; lowest 14.63 below lsd, Mar. 1, 1948. Records available: 1935-60.

Jan. 4, 1956	6.34	May 1, 1957	10.34	Aug. 1, 1958	6.40	Oct. 5, 1959	10.59
Feb. 1	5.84	June 1	9.50	Sept. 2	7.10	Nov. 3	11.36
Mar. 1	8.14	July 1	8.95	Oct. 3	8.22	Dec. 1	12.41
Apr. 2	7.96	Aug. 1	8.74	Nov. 3	8.93	Jan. 5, 1960	11.86
May 2	8.20	Sept. 3	9.45	Dec. 1	9.20	Feb. 1	13.70
June 1	14.85	Oct. 4	9.89	Jan. 2, 1959	9.75	Mar. 1	14.10
July 2	6.81	Nov. 1	10.39	Feb. 2	11.85	Apr. 1	12.06
Aug. 1	7.50	Dec. 2	11.82	Mar. 2	11.14	May 2	11.50
Sept. 4	8.02	Jan. 3, 1958	12.50	Apr. 1	10.12	June 1	9.07
Oct. 5	8.70	Feb. 3	12.43	May 1	11.15	July 1	9.45
Nov. 1	9.37	Mar. 3	10.72	4	10.94	Aug. 1	8.60
Dec. 3	10.89	Apr. 1	9.10	June 1	10.26	Sept. 1	9.85
Jan. 4, 1957	11.56	May 1	6.76	July 1	9.15	Oct. 5	11.04
Feb. 1	12.36	June 2	4.18	Aug. 4	9.68	Nov. 1	11.68
Mar. 1	13.22	July 1	5.53	Sept. 1	10.05	Dec. 1	14.07
Apr. 1	10.89						

j Adjacent land flooded.

4N/7-34F11. John J. Schmiedt. About 4.2 mi east of Lodi. Drilled observation water-table well in alluvium, diam 4 in, depth 24 ft. Lsd 61.76 ft above msl. MP top west side of casing, 1.35 ft above lsd. Highest water level 6.09 below lsd, Jan. 6, 1956; lowest 18.96 below lsd, May 2, 1960. Records available: 1952-60.

## CALIFORNIA, SANTA BARBARA COUNTY

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4N/7-34F11--Continued.

Date	Water level						
Jan. 6, 1956	6.08	May 1, 1957	16.28	Aug. 1, 1958	12.99	Oct. 6, 1959	17.71
Feb. 1	j6.84	June 1	15.06	Sept. 2	14.42	Nov. 3	17.99
Mar. 1	10.67	July 1	13.80	Oct. 7	14.73	Dec. 1	18.28
May 4	12.28	Aug. 1	15.59	Nov. 3	15.20	Jan. 6, 1960	18.43
June 1	8.78	Sept. 3	16.25	Dec. 1	15.82	Feb. 1	18.43
July 2	10.14	Oct. 7	16.39	Jan. 6, 1959	16.65	Mar. 1	18.29
Aug. 1	13.18	Nov. 1	16.40	19	16.92	Apr. 1	18.40
Sept. 4	14.64	Dec. 2	16.31	Feb. 2	17.01	May 2	18.96
Oct. 8	15.28	Jan. 7, 1958	16.04	Mar. 2	15.61	June 1	18.04
Nov. 1	15.25	Feb. 3	15.65	Apr. 1	16.20	July 1	17.00
Dec. 3	14.84	Mar. 3	13.14	May 1	17.88	Aug. 1	17.20
Jan. 8, 1957	15.35	Apr. 1	10.64	June 1	17.49	Sept. 1	17.61
Feb. 1	15.84	May 1	10.26	July 1	16.84	Oct. 6	18.09
Mar. 1	16.57	June 2	6.56	Aug. 4	17.49	Nov. 1	18.34
Apr. 1	14.85	July 1	9.30	Sept. 1	17.26	Dec. 1	18.36

j Adjacent land flooded.

Santa Barbara County

## Carpinteria Basin

4/25-19J5. Lyman & Young. Drilled unused artesian well in alluvium, diam 8 in, depth 100 ft. Lsd about 55 ft above msl. MP top of casing, 0.18 ft above lsd. Highest water level 39.41 below lsd, Apr. 23, 1942; lowest 92.95 below lsd, Sept. 25, 1951. Records available: 1941-60.

Feb. 29, 1956	j60.44	July 24, 1957	q69.71	Aug. 27, 1958	j58.58	Nov. 25, 1959	j70.71
Mar. 29	54.72	Aug. 29	j74.48	Sept. 25	j57.24	Dec. 30	j68.45
May 31	52.62	Oct. 2	j75.49	Oct. 30	j59.20	Jan. 29, 1960	j65.84
June 29	52.82	22	j72.54	Nov. 28	j59.24	Feb. 24	j63.89
Oct. 22	j65.98	Nov. 25	j69.07	Jan. 29, 1959	j56.56	Mar. 29	j61.44
Nov. 30	j69.23	Dec. 31	j66.64	Feb. 25	54.64	Apr. 25	j60.68
Dec.	j70.39	Feb. 3, 1958	j64.31	Apr. 3	53.29	May 27	j56.20
Jan. 28, 1957	j66.46	28	j61.87	May 29	j61.05	June 23	j66.02
Feb. 25	j63.89	Mar. 28	(m)	June 29	j61.77	Aug. 29	j71.18
Mar. 18	j62.91	Apr. 29	49.53	July 31	j63.17	Sept. 30	j71.70
Apr. 29	j60.97	May 27	47.18	Aug. 24	j63.41	Oct. 24	j73.02
May 31	j59.22	June 23	51.90	Sept. 25	j70.30	Nov. 25	j69.79
June 28	j64.41	July 31	j56.82	Oct. 29	j68.55	Dec. 27	j66.48

c Nearby well being pumped.

j Water level below sea level.

m Recharging.

4/25-26A1. Moses Mesa Associates Co. Drilled unused water-table well in Casitas Formation of Pleistocene age, diam 10 in, depth 480 ft, cased to 480, perforated 228-380. Lsd about 420 ft above msl (previously reported 412 ft above msl). MP lower lip of 1½-in pipe, through concrete foundation, 1.00 ft above lsd. Highest water level 230.09 below lsd, Feb. 8, 1946; lowest 387.00 below lsd, Nov. 28, 1955. Records available: 1946-60.

Jan. 31, 1956	383.70	June 28, 1957	c315.09	Sept. 25, 1958	279.99	Nov. 25, 1959	288.39
Feb. 29	338.62	July 24	319.01	Oct. 30	281.39	Dec. 30	293.42
Mar. 29	333.28	Aug. 29	j322.25	Nov. 28	293.82	Jan. 29, 1960	290.55
Apr. 26	330.94	Oct. 2	323.31	Jan. 29, 1959	286.54	Feb. 24	289.73
June 29	319.11	28	322.75	Feb. 25	284.60	Mar. 29	281.69
July 23	320.61	Nov. 25	320.89	Apr. 3	283.06	May 2	283.12
Aug. 25	325.75	Dec. 31	317.69	30	283.67	27	282.89
Sept. 25	331.16	Feb. 3, 1958	308.67	May 29	284.13	July 29	287.11
Nov. 30	331.50	28	305.90	June 29	284.88	Aug. 29	293.34
Dec. 31	331.53	Apr. 29	297.17	July 31	286.89	Sept. 30	292.17
Jan. 28, 1957	322.14	June 27	298.00	Aug. 24	286.99	Oct. 24	293.39
Mar. 18	314.77	July 31	283.80	Sept. 28	290.91	Nov. 25	291.43
May 31	310.39	Aug. 27	279.41	Oct. 29	289.21	Dec. 30	284.65

c Nearby well being pumped.

j Electric sounder.

4/25-27Q2. A. F. Heimlich. Drilled unused artesian well in Casitas Formation of Pleistocene age, diam 10 in, depth 198 ft. Lsd about 127 ft above msl. MP top east side of casing, 0.68 ft above lsd. Highest water level 92.86 below lsd, Apr. 30, 1945; lowest 175.42 below lsd, Sept. 25, 1951. Records available: 1941-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 31, 1956	j141.22	Feb. 25, 1957	j146.70	Apr. 29, 1958	j141.77	Dec. 30, 1959	j152.36
Feb. 29	j141.76	Mar. 18	j145.58	May 27	j138.26	Jan. 29, 1960	j141.15
Mar. 29	j140.80	Apr. 29	j144.53	June 23	j136.68	Feb. 24	j139.63
Apr. 26	j140.17	May 31	j143.50	July 31	j136.95	Mar. 29	j137.68
May 31	j138.40	July 24	j145.46	Aug. 27	j137.50	May 2	j137.23
June 29	j138.38	Aug. 29	j147.68	Sept. 25	j137.53	27	j136.51
July 23	j139.80	Oct. 2	j148.95	Oct. 30	j139.01	June 23	j136.95
Aug. 25	j140.77	28	j148.81	Nov. 28	j141.67	Aug. 29	j136.12
Sept. 25	j143.01	Nov. 25	j144.83	Feb. 25, 1959	j135.72	Sept. 30	j136.43
Oct. 22	j143.39	Dec. 31	j150.18	Apr. 30	j136.42	Oct. 24	j138.21
Nov. 30	j146.09	Feb. 3, 1958	j143.03	May 29	j137.92	Nov. 25	j137.28
Dec. 31	j146.17	28	j145.99	Sept. 25	j136.80	Dec. 27	j135.32
Jan. 28, 1957	j147.16	Mar. 28	j143.48				

c Nearby well being pumped.

j Water level below sea level.

4/25-29L1. A. P. Salzgeber. Drilled unused artesian well in alluvium, diam 2 in, depth 110 ft. Lsd about 18 ft above msl. MP top of casing, 1.60 ft above lsd. Highest water level 7.43 below lsd, May 27, 1958; lowest 51.24 below lsd, Sept. 25, 1951. Records available: 1950-60.

Jan. 30, 1956	18.01	Apr. 29, 1957	17.79	July 31, 1958	17.66	Nov. 25, 1959	j22.51
Feb. 29	15.44	May 31	17.08	Aug. 27	j18.51	Dec. 30	j23.13
Mar. 29	14.09	June 28	j26.69	Sept. 25	13.11	Jan. 29, 1960	j20.39
Apr. 26	12.30	July 24	j27.96	Oct. 30	15.33	Feb. 24	17.51
May 31	9.83	Aug. 29	j35.33	Nov. 28	16.31	Mar. 29	16.97
June 29	12.97	Oct. 2	j33.56	Jan. 29, 1959	11.91	May 2	16.21
July 23	j20.43	28	j26.35	Feb. 25	10.33	27	16.58
Aug. 25	j24.88	Nov. 25	j22.99	Apr. 3	9.43	June 23	16.79
Sept. 25	j25.71	Dec. 31	j20.45	30	14.42	July 29	j25.80
Oct. 22	j22.89	Feb. 3, 1958	j18.35	May 29	15.53	Aug. 29	j29.22
Nov. 30	j28.00	28	15.71	June 29	16.38	Sept. 30	j29.53
Dec. 31	j27.32	Mar. 28	13.19	July 31	j22.24	Oct. 24	j29.79
Jan. 28, 1957	j21.62	Apr. 29	12.83	Aug. 24	j22.88	Nov. 25	j27.23
Feb. 25	j19.05	May 27	7.43	Sept. 25	j23.99	Dec. 27	j22.50
Mar. 18	17.45	June 24	15.28	Oct. 29	j23.43		

j Water level below sea level.

#### Goleta Basin

4/28-9E1. A. T. Spaulding. Fairview and Encina Rds. Drilled domestic artesian well in Santa Barbara Formation of early Pleistocene age, diam 12 in, depth 310 ft. Lsd 43.58 ft above msl. MP top north side of casing, 0.20 ft above lsd. Highest water level 27.64 below lsd, June 7, 1941; lowest 78.66 below lsd, Oct. 29, 1954. Records available: 1941, 1943-60.

Jan. 30, 1956	j75.09	May 31, 1957	j69.78	Oct. 30, 1958	j66.86	Dec. 30, 1959	j64.53
Feb. 27	j74.51	June 28	j71.83	Nov. 28	j67.47	Jan. 29, 1960	j64.62
Mar. 29	j73.66	July 24	j72.10	Dec. 29	j87.07	Feb. 24	j63.62
Apr. 26	j72.88	Aug. 30	j72.13	Jan. 29, 1959	j65.06	Mar. 29	j62.91
May 28	j71.87	Oct. 1	j71.98	Feb. 25	j64.01	May 3	j62.55
June 25	j72.55	28	j72.18	Apr. 3	j63.37	27	j62.37
July 23	j74.45	Nov. 25	j71.22	30	j63.76	June 23	j62.59
Aug. 30	j73.54	Dec. 31	j70.76	May 29	j63.80	July 29	j63.47
Sept. 25	j74.07	Jan. 31, 1958	j70.14	June 25	j63.91	Aug. 30	j64.10
Oct. 29	j74.20	Feb. 28	j69.45	July 31	j65.69	Sept. 30	j63.91
Nov. 30	j73.68	Mar. 28	j68.88	Aug. 24	j65.78	Oct. 31	j63.69
Jan. 28, 1957	j72.31	Apr. 30	j68.00	Sept. 25	j66.01	Nov. 25	j62.54
Mar. 26	j70.84	July 30	j67.15	Oct. 29	j65.81	Dec. 30	j61.88
Apr. 26	j71.18	Sept. 25	j67.47	Nov. 25	j66.16		

j Water level below sea level.

4/28-10F1. J. S. Edwards. Patterson Ave. and Maria Ygnacio Creek. Drilled unused (previously reported domestic and irrigation) artesian well in Santa Barbara Formation of early Pleistocene age, diam 12 in, depth 459 ft, cased to 459, perforated 72-198, 312-459. Lsd 79.90 ft above msl. MP top of hole in southeast side of pumpbase, 0.70 ft above lsd. Highest water level 56.44 below lsd, Apr. 28, 1943; lowest 103.27 below lsd, July 24, 1956. Records available: 1932-33, 1937-38, 1941-60.

## CALIFORNIA, SANTA BARBARA COUNTY

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4/28-10F1--Continued.

Date	Water level						
Jan. 30, 1956	j80.34	May 31, 1957	77.98	Aug. 29, 1958	73.05	Dec. 30, 1959	72.63
Feb. 27	j79.95	July 24	79.33	Sept. 25	73.51	Jan. 29, 1960	72.96
Mar. 29	79.03	Aug. 30	79.27	Nov. 28	71.28	Feb. 24	73.15
Apr. 26	j87.67	Oct. 2	79.03	Dec. 29	70.38	Mar. 29	72.88
May 28	j89.40	28	79.25	Feb. 25, 1959	70.94	May 3	77.05
June 25	j93.18	Nov. 25	78.45	Apr. 3	69.76	27	76.87
July 24	j103.27	Dec. 31	78.05	May 29	71.08	June 23	77.90
Sept. 25	j102.41	Jan. 31, 1958	79.06	June 25	71.10	July 29	77.80
Nov. 30	j102.97	Feb. 28	77.47	July 31	71.38	Aug. 30	74.33
Dec. 31	j101.81	Mar. 28	77.81	Aug. 24	71.68	Sept. 30	74.31
Jan. 28, 1957	j98.07	Apr. 30	76.15	Sept. 25	72.13	Oct. 31	74.44
Feb. 25	j88.80	May 26	76.20	Oct. 29	72.00	Nov. 25	73.97
Mar. 25	j85.56	June 24	76.31	Nov. 25	71.91	Dec. 4	73.71
Apr. 26	j85.50	July 30	72.55				

j Water level below sea level.

4/29-14A3. Ben Romer. Formerly Frank Baker. Glen Annie Rd. and Southern Pacific RR. Drilled domestic and irrigation water-table well in Santa Barbara Formation of early Pleistocene age, diam 12 in., depth 126 ft. Lsd about 51 ft above msl. MP edge of hole in casing cover, 1.00 ft above lsd. Highest water level 51.02 below lsd, Dec. 30, 1960; lowest 87.46 below lsd, July 30, 1951. Records available: 1941-58, 1960. No measurement made in 1959.

Jan. 30, 1956	j68.65	Dec. 31, 1956	j65.73	Mar. 28, 1958	j64.35	May 3, 1960	j52.42
Feb. 27	j68.45	Jan. 28, 1957	j64.39	Apr. 30	j60.19	27	j51.97
Mar. 29	j68.70	Feb. 25	j63.80	May 26	j60.20	June 23	j51.99
Apr. 26	j68.21	Apr. 26	j62.60	June 24	j60.42	July 29	j52.00
May 28	j68.11	May 31	j63.51	July 30	j61.12	Aug. 30	j51.74
June 25	j68.59	June 28	j65.86	Aug. 29	j61.31	Sept. 30	j51.39
July 24	j67.06	July 24	j66.09	Sept. 25	j61.99	Oct. 31	j51.52
Aug. 30	j66.80	Aug. 30	j65.04	Nov. 28	j56.99	Nov. 25	j52.26
Oct. 29	j66.18	Jan. 31, 1958	j67.25	Dec. 29	j56.41	Dec. 30	51.02
Nov. 30	j65.40	Feb. 28	j66.79	Mar. 29, 1960	j52.63		

j Water level below sea level.

## Upper Santa Ynez Valley

6/30-9N1. San Lucas Ranch. Near Santa Ynez. Drilled stock water-table well in Paso Robles (?) Formation of Pliocene and Pleistocene (?) age, diam 8 in., depth 160 ft. Lsd 660.01 ft above msl (previously reported about 653 ft above msl). MP top north side of casing collar, 1,10 ft above lsd. Highest water level 24.06 below lsd, July 27, 1960; lowest 41.54 below lsd, Jan. 30, 1956. Records available: 1941-60.

Jan. 30, 1956	41.54	Mar. 30, 1957	39.50	June 25, 1958	38.60	Aug. 25, 1959	37.80
Feb. 28	39.29	Apr. 26	39.03	Aug. 28	38.35	Sept. 25	37.77
Mar. 28	39.22	May 28	39.57	Sept. 26	38.28	Oct. 27	37.71
Apr. 25	39.22	June 25	39.59	Oct. 28	38.22	Nov. 25	38.90
May 29	39.20	July 24	39.57	Nov. 25	38.19	Jan. 27, 1960	(a)
July 25	39.30	Aug. 27	39.77	Dec. 29	38.21	Feb. 25	(a)
Aug. 28	39.34	Sept. 23	39.80	Jan. 29, 1959	38.05	Mar. 30	(a)
Sept. 26	39.38	Oct. 29	39.86	Feb. 26	37.85	Apr. 26	(b)
Oct. 22	a40.80	Nov. 25	39.76	Apr. 29	37.77	May 25	24.85
Dec. 28	39.50	Dec. 27	39.82	May 25	a38.30	July 27	24.06
Jan. 28, 1957	39.43	Mar. 28, 1958	38.90	June 23	a37.88	Sept. 27	(a)
Feb. 26	38.20	Apr. 30	39.19	July 28	37.79		

a Well being pumped.

b Well pumped recently.

6/30-29E1. Rancho Juan y Lolita. Near Santa Ynez. Drilled unused water-table well in alluvium, diam 10 in., depth 52 ft. Lsd 465.02 ft above msl (previously reported about 461 ft above msl). MP top of recorder shelf, 0.41 ft above lsd. Highest water level 7.90 below lsd, Mar. 10, 1941; lowest 24.00 below lsd, May 20-21, 1951. Records available: 1933-60.

## Water level at noon, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	22.92	21.20	17.08	17.33	13.67	14.18	14.75	18.40	21.06	21.49	21.86	.....
10	22.95	19.80	16.94	17.42	13.84	13.55	15.05	18.98	21.17	21.56	21.95	22.30
15	22.96	18.90	16.90	16.80	13.71	13.31	15.82	19.30	21.05	21.67	22.04	22.35
20	22.92	18.16	16.98	15.74	13.87	13.35	16.46	19.78	21.20	21.75	22.10	22.40
25	22.45	17.61	17.12	14.52	14.11	13.76	16.57	20.26	21.32	21.75	22.20	22.45
Eom	21.82	17.31	17.25	13.80	14.60	14.26	17.65	20.77	21.42	21.80	22.26	22.48

6/30-29 E1--Continued.

1957												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	22.51	22.62	22.43	22.07	21.85	....	22.35	22.90	23.38	23.56	17.81	19.34
10	22.56	22.59	22.40	22.07	21.80	21.80	22.47	23.02	23.45	19.20	....	....
15	22.56	22.55	....	22.06	21.75	21.93	22.57	23.03	23.52	17.70	18.43	19.73
20	22.63	22.56	....	22.02	21.70	22.04	22.63	23.11	23.58	17.17	18.77	19.61
25	22.62	....	22.17	21.95	21.68	22.14	22.70	23.21	23.67	17.13	18.93	18.80
Eom	22.62	....	22.09	21.93	21.71	22.24	22.82	23.31	23.66	17.51	19.16	17.82
1958												
5	17.47	....	14.44	11.36	11.05	11.95	12.53	12.83	14.49	15.17	17.10	....
10	17.27	15.63	14.72	....	11.26	12.01	12.73	13.10	....	15.53	17.14	....
15	17.20	....	14.94	10.31	11.48	12.05	12.87	13.30	....	16.13	17.02	15.31
20	....	15.20	14.82	10.23	11.64	12.13	12.93	13.38	....	16.56	16.66	....
25	17.29	14.64	14.00	10.53	11.72	12.21	13.00	13.29	14.96	16.79	16.31	....
Eom	17.02	14.58	13.38	10.78	11.79	....	12.75	13.94	15.18	16.92	16.03	....
1959												
5	....	....	12.96	13.71	13.36	14.45	16.50	19.15	20.76	21.55	....	....
10	....	....	12.93	14.06	13.49	15.05	16.90	19.69	20.89	....	....	....
15	....	14.45	13.13	13.90	13.80	15.47	....	19.90	20.92	....	....	....
20	....	14.01	....	13.43	13.88	15.97	17.68	19.79	21.25	....	....	22.73
25	....	13.57	13.44	13.24	13.75	16.37	18.05	20.08	21.40	....	....	22.79
Eom	....	13.25	13.48	13.34	13.96	16.09	18.86	20.52	21.51	....	....	22.84
1960												
5	22.90	22.92	17.75	14.11	14.08	....	16.22	18.68	....	b21.31	....	....
10	22.91	22.86	15.91	13.94	13.85	....	16.60	19.32	....	....	....	....
15	....	22.73	15.32	13.70	13.64	14.66	17.53	19.75	....	....	....	....
20	22.95	21.71	14.81	13.51	13.62	15.15	18.04	20.09	....	....	....	....
25	22.95	18.91	14.40	13.67	13.79	15.16	18.39	20.41	....	....	....	....
Eom	22.94	17.95	14.12	13.91	13.78	15.65	17.93	....	....	....	....	....

## **h Tape measurement.**

6/32-9A1. Owen E. Hollister. Near Buelton. Drilled domestic water-table well in alluvium, diam 8 in, depth 58 ft. Lsd 307.67 ft above msl (previously reported 309.33 ft above msl). MP bottom edge west side of pumpbase, 0.90 ft above lsd. Highest water level 26.20 below lsd, Jan. 21, 1942; lowest 39.55 below lsd, July 10, 1956. Records available: 1943-58. Measurement discontinued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26, 1956	32.83	Aug. 28, 1956	32.90	Apr. 26, 1957	33.84	Jan. 30, 1958	33.67
Feb. 28	32.50	Sept. 26	b43.90	June 25	34.20	June 25	33.23
Mar. 28	33.35	Oct. 22	34.11	July 24	36.75	Aug. 28	35.76
April 25	34.60	Nov. 27	33.80	Aug. 27	37.23	Sept. 26	35.58
July 10	39.55	Dec. 19	33.54	Sept. 4	37.20	Oct. 28	34.53
Aug. 1	35.63	Feb. 26, 1957	32.81	Oct. 29	34.39		

b Well pumped recently.

6-33-9P1. Hollister Estate. Near Lompoc. Drilled unused water-table well in alluvium, diam 16 in., depth 83 ft. Lsd 203.03 ft above msl (previously reported about 200 ft above msl). MP top hole at center on south side of steel cover, at lsd. Highest water level 21.80 below lsd, Apr. 3, 1941; lowest 54.61 below lsd, Nov. 30, 1950. Records available: 1932-60.

Jan. 26, 1956	40.09	Mar. 21, 1957	40.10	Aug. 28, 1958	41.89	Nov. 25, 1959	42.58
Feb. 27	39.14	June 26	47.94	Sept. 26	40.59	Dec. 23	42.65
Mar. 27	40.25	July 26	47.94	Oct. 28	39.58	Jan. 28, 1960	41.87
Apr. 24	42.00	Aug. 28	48.07	Nov. 26	40.31	Feb. 26	40.94
May 28	44.53	Sept. 23	46.71	Dec. 30	39.59	Mar. 31	44.16
June 26	c47.22	Oct. 30	44.34	Jan. 30, 1959	39.00	Apr. 26	44.35
July 26	45.50	Dec. 30	46.09	Feb. 27	38.57	May 26	44.22
Aug. 29	45.91	Jan. 31, 1958	45.69	Mar. 27	38.49	June 22	44.33
Sept. 27	45.46	Feb. 27	40.30	Apr. 30	c44.93	July 28	45.85
Oct. 26	43.59	Apr. 8	38.18	June 24	42.15	Aug. 23	45.94
Nov. 28	43.65	30	36.55	July 21	c55.50	Sept. 29	46.29
Dec. 27	42.39	May 29	38.45	Aug. 28	47.15	Oct. 28	46.79
Jan. 31, 1957	41.30	June 25	c42.80	Sept. 29	43.98	Nov. 30	43.16
Feb. 28	40.60	July 28	42.20	Oct. 28	42.79	Dec. 29	42.96

c Nearby well being pumped.

## Lower Santa Ynez Valley

7/31-36L2. D. B. Kilbourne. Near Ballard. Baseline and Grand (Refugio) Aves.

Drilled domestic and irrigation water-table well in Paso Robles Formation, diam 12 in, depth 230 ft. Lsd 720.62 ft above msl (previously reported about 715 ft above msl). MP bottom of notch in northwest side of casing, 0.82 ft above lsd. Highest water level 16.54 below lsd, Apr. 7, 1943; lowest 91.31 below lsd, Aug. 23, 1960. Records available: 1942-60.

Date	Water level						
Jan. 30, 1956	54.02	May 28, 1957	64.42	Aug. 28, 1958	77.42	Jan. 27, 1960	72.36
Mar. 27	61.16	June 26	73.66	Sept. 26	79.10	Feb. 25	69.93
Apr. 25	61.43	July 24	75.35	Oct. 28	76.83	Mar. 30	(a)
May 29	63.38	Aug. 27	80.85	Nov. 25	73.18	Apr. 26	(a)
June 25	61.86	Sept. 23	b76.93	Dec. 29	74.70	May 25	68.38
Aug. 28	66.60	Oct. 29	74.38	Jan. 29, 1959	68.81	June 21	(a)
Sept. 26	68.08	Dec. 27	69.76	Feb. 26	68.20	July 26	90.03
Oct. 22	76.57	Jan. 30, 1958	67.67	Apr. 29	72.07	Aug. 23	91.31
Nov. 27	69.38	Feb. 27	65.72	May 25	75.37	Sept. 27	(a)
Dec. 28	70.58	Mar. 28	63.75	June 23	77.22	Oct. 28	(a)
Jan. 29, 1957	62.84	Apr. 14	62.06	July 28	78.07	Nov. 30	81.65
Mar. 20	60.05	May 28	63.08	Nov. 25	84.98	Dec. 29	(a)
Apr. 26	62.32	July 28	71.50				

a Well being pumped.

b Well pumped recently.

7/34-12E1. U. S. Geol. Survey. Union Oil Co., Purisima Lease. Near Lompoc.

Drilled observation water-table well in Careaga Sand of Canfield (1939), diam 8 to 16 in, depth 385 ft, cased to 385, perforated 145-385 (previously reported 345-385). Lsd 385.83 ft above msl. MP top of recorder shelf, 2.07 ft above lsd. Highest water level 301.70 below lsd, June 25, 1949; lowest 306.54 below lsd, Aug. 9, 1960. Records available: 1949-60.

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	304.41	304.54	304.62	.....	.....	.....	304.85	304.81	304.90	304.94	304.77
10	304.57	304.65	304.50	304.50	304.70	.....	.....	304.73	304.82	304.86	304.86	304.95
15	304.48	304.36	304.74	304.77	304.68	.....	.....	304.81	304.79	304.87	304.90	304.77
20	304.37	304.67	304.52	304.69	304.65	.....	.....	304.82	304.76	304.74	304.93	.....
25	304.42	304.65	304.61	304.60	304.52	.....	.....	304.67	304.76	304.81	304.90	304.95
Eom	304.55	304.68	304.47	304.69	304.72	.....	.....	304.80	304.81	304.83	304.93	304.80

## 1957

5	304.82	.....	.....	304.84	304.79	305.03	305.03	305.11	305.11	.....	.....	305.04
10	305.02	.....	.....	304.92	304.95	304.99	305.00	304.99	305.05	.....	.....	305.29
15	305.08	.....	.....	304.95	305.04	304.94	304.96	305.16	.....	.....	305.13	305.10
20	.....	.....	.....	304.77	304.89	304.92	305.11	305.10	.....	.....	305.27	305.33
25	.....	.....	.....	304.92	305.08	305.03	304.96	305.05	.....	.....	305.13	305.38
Eom	.....	.....	.....	304.88	305.06	305.09	305.03	305.16	.....	.....	305.32	305.32

## 1958

5	305.44	305.19	304.81	304.98	304.96	.....	.....	305.17	305.22	.....	.....	305.36	305.11
10	305.30	305.32	304.96	305.09	304.89	305.13	305.18	305.31	.....	.....	.....	305.24	305.44
15	305.40	305.30	305.05	304.95	.....	305.08	305.26	305.25	.....	.....	.....	305.14	305.46
20	305.16	305.09	305.07	305.00	.....	305.23	305.30	305.29	.....	.....	.....	305.33	305.33
25	305.13	305.13	305.18	305.01	.....	305.07	305.24	305.24	.....	.....	305.37	305.25	305.36
Eom	305.18	305.15	304.89	304.91	.....	305.18	305.26	.....	.....	305.44	305.50	305.32	.....

## 1959

5	304.84	305.18	305.27	305.21	305.46	305.34	305.47	305.33	.....	.....	305.73	305.78	305.79
10	305.29	305.10	305.23	305.36	305.22	305.26	305.41	305.42	.....	.....	305.55	305.68	305.70
15	305.32	305.07	305.38	305.35	305.41	305.33	305.41	305.49	305.59	305.52	305.63	305.70	.....
20	305.10	305.04	.....	305.39	.....	305.39	305.33	305.56	305.65	305.73	305.64	.....	.....
25	305.39	305.33	305.40	305.33	.....	305.34	305.32	305.55	305.58	305.62	305.54	305.53	.....
Eom	305.34	305.31	305.31	305.22	305.39	305.46	305.38	.....	305.35	305.71	305.73	305.67	.....

## 1960

5	306.04	305.84	305.81	305.80	305.95	305.89	.....	.....	.....	306.18	.....	.....	
10	305.51	305.57	305.65	305.80	305.85	305.99	.....	.....	.....	.....	.....	.....	.....
15	305.81	305.85	305.84	305.82	305.92	306.00	.....	.....	.....	.....	.....	.....	.....
20	305.85	305.74	305.73	305.76	306.03	.....	.....	.....	.....	.....	.....	.....	.....
25	305.69	305.60	305.80	305.80	306.06	.....	.....	.....	.....	.....	.....	.....	.....
Eom	305.66	305.52	305.88	306.02	305.92	.....	.....	.....	.....	.....	.....	.....	.....

h Tape measurement.

7/34-28H2. T. M. Parks. Near Lompoc. Central Ave. and H St. Drilled unused artesian well in alluvium, diam 6 in, depth 78 ft. Lsd 89.55 ft above msl. MP top of hole in

board, 0.57 ft above lsd. Highest water level 21.74 below lsd, Mar. 10, 1943; lowest 43.14 below lsd, May 28, 1951. Records available: 1930-39, 1942-60.

## GROUND-WATER LEVELS, 1956-60, SOUTHWESTERN STATES

7/34-28H2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26, 1956	29.78	Apr. 30, 1957	36.15	Sept. 29, 1958	c32.23	Nov. 25, 1959	c36.86
Feb. 27	29.13	May 29	33.34	Oct. 28	c31.31	Dec. 22	c35.60
Mar. 27	32.43	June 26	37.55	Nov. 25	c30.75	Jan. 27, 1960	c34.11
Apr. 24	34.88	Aug. 28	37.33	Dec. 30	31.31	Feb. 25	33.79
May 28	33.73	Sept. 27	38.11	Jan. 29, 1959	30.40	Mar. 30	c38.56
June 26	c37.50	Oct. 30	35.86	Feb. 26	28.27	Apr. 26	40.15
July 26	35.07	Nov. 26	34.72	Mar. 26	34.77	May 25	39.23
Aug. 29	32.20	Dec. 30	33.87	Apr. 29	34.27	June 21	c41.58
Sept. 27	31.62	Jan. 31, 1958	33.25	May 26	c33.73	July 27	c43.16
Oct. 26	31.37	Feb. 28	31.68	June 23	c34.95	Aug. 23	c42.31
Nov. 30	32.09	Apr. 8	28.27	July 28	c35.54	Sept. 27	c40.13
Jan. 31, 1957	30.81	28	27.32	Aug. 25	c36.50	Oct. 28	c40.04
Feb. 27	30.29	June 24	29.06	Sept. 25	c36.88	Nov. 29	37.82
Mar. 21	32.46	Aug. 29	27.12	Oct. 27	c37.39	Dec. 29	38.34

c Nearby well being pumped.

7/34-34H1. Johns-Manville Corp. Lompoc. Pine Ave. and First St. Drilled unused (previously reported irrigation) water-table well in alluvium, diam 12 in, depth 160 ft, perforated 118-156. Lsd 112.10 ft above msl. MP hole in floor of recorder shelter, 0.40 ft above lsd. Highest water level 33.46 below lsd, May 8, 1941; lowest 56.71 below lsd, July 26, 1951. Records available: 1941-59. Recorder removed Mar. 14, 1959. Mar. 27, 1959, 40.08; Apr. 29, 44.27. Well destroyed; measurement discontinued.

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	44.54	41.42	40.22	41.80	41.00	40.70	41.87	43.50	44.05	44.45	44.75	45.19
10	43.88	41.16	40.37	41.62	40.73	41.20	42.14	43.36	44.10	44.50	44.95	45.27
15	43.22	40.95	40.65	41.33	40.74	41.97	42.46	43.60	44.18	44.55	45.03	.....
20	42.79	40.72	41.10	41.17	40.58	42.23	42.85	43.98	44.38	44.60	45.09	45.61
25	42.28	40.51	41.10	41.31	40.68	.....	.....	43.88	44.59	44.75	45.09	.....
Eom	41.84	40.34	41.67	40.96	40.45	.....	43.16	44.10	44.35	44.73	45.15	45.87

## 1957

5	45.50	45.04	43.35	42.74	44.44	45.78	47.15	48.90	49.98	50.17	50.64	50.22
10	45.49	44.92	42.79	43.15	44.86	45.84	47.54	49.08	50.00	50.32	50.27	50.05
15	45.50	44.74	42.32	43.65	44.86	45.90	47.76	452.03	50.02	50.08	b50.17	49.93
20	45.45	44.65	41.93	43.78	44.88	46.29	48.16	49.74	50.08	50.12	50.13	49.86
25	45.42	44.30	41.84	43.89	45.17	46.48	48.42	49.91	50.05	50.28	50.45	49.77
Eom	45.20	43.95	41.96	43.98	45.36	47.01	48.73	50.12	50.17	50.28	50.40	49.69

## 1958

5	49.68	.....	43.15	.....	.....	40.04	42.33	.....	42.44	42.55	42.96	43.43
10	49.62	45.68	.....	.....	39.97	40.07	.....	41.75	42.13	42.67	43.04	43.45
15	45.37	.....	.....	.....	40.10	40.07	.....	42.02	42.10	42.75	43.02	43.49
20	44.53	.....	.....	40.19	40.27	.....	42.13	42.24	42.86	43.47	43.37	.....
25	43.88	.....	.....	40.04	40.47	43.52	42.05	.....	42.87	43.65	43.00	.....
Eom	43.58	.....	.....	40.22	40.63	41.30	42.16	42.29	42.86	43.38	42.65	.....

## 1959

5	42.17	40.34	39.37	.....	.....	.....	.....	.....	.....	.....	.....	.....
10	41.65	40.17	39.39	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	41.32	39.96	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	40.96	39.73	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	40.84	39.56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eom	40.53	39.46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

h Tape measurement.

7/35-23J2. Union Sugar Co. Near Lompoc. Central and Artesia Aves. Drilled irrigation artesian well in alluvium, diam 12 in, depth 158 ft. Lsd 43.58 ft above msl (previously reported 43.93 ft above msl). MP top of hole in north side of pumpbase, 1.00 ft above lsd. Highest water level 11.40 below lsd, Apr. 8, 1958; lowest 31.11 below lsd, July 27, 1950 (previously reported 29.92 below lsd, Aug. 26, 1948). Records available: 1947-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30, 1956	13.24	Jan. 21, 1957	14.26	Jan. 31, 1958	16.90	Sept. 29, 1958	17.72
Feb. 27	13.43	Mar. 21	16.10	Feb. 28	13.61	Oct. 29	18.99
Mar. 27	16.36	Apr. 30	23.55	Apr. 8	11.40	Jan. 30, 1959	14.22
July 26	19.90	May 29	19.13	28	18.20	Feb. 27	13.17
Sept. 27	17.01	July 26	b28.43	May 29	21.16	June 24	21.69
Oct. 26	18.28	Sept. 27	18.62	July 29	18.84	Sept. 29	19.37
Nov. 30	16.05	Nov. 26	18.37	Aug. 29	16.17	Jan. 28, 1960	16.27

7/35-23J2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 26, 1960	15.28	May 27, 1960	(a)	Aug. 25, 1960	(a)	Nov. 29, 1960	18.47
Mar. 31	(a)	June 23	23.37	Sept. 29	(a)	Dec. 28	17.11
Apr. 29	21.14	July 28	(a)	Oct. 27	21.89		

a Well being pumped.

b Well pumped recently.

7/35-23J3. U. S. Geol. Survey, Union Sugar Co. property. Near Lompoc. Drilled observation water-table well in alluvium, diam 2 in, depth 32 ft, cased to 32. Lsd 43.43 ft above msl. MP top east side of casing, 1.00 ft above lsd. Highest water level 9.16 below lsd, Apr. 28, 1958; lowest 26.56 below lsd, Oct. 29, 1951. Records available: 1947-58. Well destroyed; measurement discontinued.

Jan. 30, 1956	16.37	Aug. 29, 1956	c20.50	Mar. 21, 1957	15.59	Nov. 26, 1957	20.12
Feb. 27	15.50	Sept. 27	19.42	Apr. 30	19.79	Dec. 30	18.75
Mar. 27	15.45	Oct. 26	18.18	May 29	19.82	Jan. 31, 1958	16.11
Apr. 24	c18.70	Nov. 30	17.93	July 26	21.68	Apr. 8	9.30
May 28	c19.27	Dec. 27	c18.47	Aug. 28	22.16	28	9.16
June 26	c20.40	Jan. 31, 1957	17.18	Sept. 27	21.15	May 29	13.93
July 26	20.34	Feb. 27	16.12	Oct. 30	c20.50	June 24	c15.20

c Nearby well being pumped.

7/35-26J4. County of Santa Barbara, Artesia School District. Near Lompoc. Artesia and Central Aves. Drilled public-supply artesian well in alluvium, diam 8 in, depth 141 ft, perforated 132-140. Lsd 40.86 ft above msl. MP top southwest side of 1-in pipe, 1.50 ft above lsd. Highest water level 5.76 below lsd, Apr. 29, 1958; lowest 33.63 below lsd, July 26, 1951. Records available: 1947-60.

Jan. 30, 1956	8.28	Apr. 30, 1957	17.91	July 29, 1958	16.40	Oct. 28, 1959	c21.30
Feb. 27	9.27	May 29	16.30	Aug. 29	11.53	Nov. 25	15.67
Mar. 27	24.75	June 26	22.72	Sept. 29	13.46	Dec. 23	c19.85
Apr. 24	23.25	July 26	19.54	Oct. 29	b16.80	Jan. 28, 1960	11.08
May 28	b14.58	Aug. 28	26.15	Nov. 26	b11.30	Feb. 26	10.18
June 26	15.63	Sept. 26	14.55	Dec. 30	11.22	Mar. 30	26.46
July 26	15.53	Oct. 30	13.62	Jan. 30, 1959	13.29	Apr. 29	18.29
Aug. 29	15.96	Nov. 26	18.17	Feb. 28	7.33	May 27	c21.64
Sept. 27	17.06	Dec. 27	10.37	Mar. 27	c21.27	June 23	21.84
Oct. 27	10.84	Jan. 31, 1958	16.08	Apr. 30	18.93	July 28	29.22
Nov. 28	12.07	Feb. 28	b8.99	May 26	b25.14	Aug. 25	22.83
Dec. 27	17.60	Mar. 31	6.56	June 24	18.78	Sept. 29	25.05
Jan. 31, 1957	9.13	Apr. 29	5.76	July 31	26.43	Oct. 27	b20.10
Feb. 27	7.98	May 29	18.26	Aug. 28	22.09	Nov. 29	b13.30
Mar. 21	13.76	June 24	13.26	Sept. 25	b16.67	Dec. 28	11.47

b Well pumped recently.

c Nearby well being pumped.

## San Antonio Valley

8/32-30K2. John Parma, Los Alamos. U. S. Highway 101 and Den St. Drilled unused artesian well in alluvium, diam 16 in, depth 100 ft. Lsd about 558 ft above msl (previously reported 555 ft above msl). MP bottom hole on north side of casing, 1.45 ft above lsd. Highest water level 1.16 above lsd, Feb. 29, 1944; lowest 34.00 below lsd, Aug. 30, 1955. Records available: 1943-60.

Jan. 26, 1956	10.11	Apr. 23, 1957	16.96	Aug. 26, 1958	11.44	Nov. 24, 1959	10.67
Feb. 29	8.62	May 29	24.43	Sept. 23	11.75	Dec. 29	9.39
Mar. 29	13.65	June 26	c27.71	Oct. 29	11.25	Feb. 2, 1960	7.95
Apr. 24	12.37	Aug. 22	31.92	Nov. 26	9.76	26	7.66
May 31	c9.25	Sept. 27	24.52	Dec. 31	8.48	Mar. 28	7.16
June 26	20.60	Oct. 31	19.10	Jan. 26, 1959	6.61	Apr. 26	8.52
July 25	28.78	Nov. 26	17.17	Feb. 26	5.74	May 26	7.99
Aug. 30	19.24	Dec. 27	17.20	Mar. 31	6.84	June 21	9.39
Sept. 25	22.37	Jan. 30, 1958	14.55	Apr. 28	6.42	July 28	27.93
Oct. 25	15.66	Feb. 25	12.22	May 27	7.55	Aug. 31	30.34
Nov. 29	13.68	Mar. 25	10.38	June 22	11.84	Sept. 28	29.66
Dec. 27	12.41	Apr. 30	7.26	July 27	15.38	Oct. 26	11.53
Jan. 31, 1957	11.08	May 28	c9.61	Aug. 25	14.63	Nov. 23	8.58
Feb. 26	10.40	June 26	12.94	Sept. 30	11.00	Dec. 29	11.30
Mar. 20	9.92	July 30	19.40	Oct. 28	11.23		

c Nearby well being pumped.

## GROUND-WATER LEVELS, 1956-60, SOUTHWESTERN STATES

8/34-23B1. Josephine Harris Estate. Near Los Alamos. Harris-Los Alamos Rd. and State Highway 1. Drilled unused artesian well in alluvium, diam 12 in, depth 150 ft. Lsd about 315 ft above msl (previously reported about 310 ft above msl). MP top east side of casing, 2,00 ft above lsd. Highest water level 12.19 below lsd, Feb. 29, 1944; lowest 20.30 below lsd, Mar. 27, 1953. Records available: 1943-60.

Date	Water level						
Jan. 26, 1956	17.30	Apr. 23, 1957	20.10	July 30, 1958	c20.00	Oct. 28, 1959	c17.45
Feb. 29	c16.95	May 29	c18.96	Aug. 26	c16.68	Nov. 24	c17.36
Mar. 29	c20.65	June 26	c19.65	Sept. 23	c16.37	Dec. 29	17.04
Apr. 24	c20.77	July 24	c23.07	Oct. 29	c16.21	Feb. 2, 1960	c16.76
May 31	c17.61	Aug. 22	c19.85	Nov. 26	c16.14	26	c16.56
June 26	c17.65	Sept. 27	c19.28	Dec. 31	16.09	Mar. 28	16.52
July 25	c21.64	Oct. 31	c18.85	Jan. 26, 1959	c16.05	Apr. 26	16.56
Aug. 30	c18.91	Nov. 26	c18.74	Feb. 26	c15.92	May 26	c17.77
Sept. 25	c18.19	Dec. 27	c18.52	Mar. 31	c19.47	June 21	c18.25
Oct. 25	c17.91	Jan. 30, 1958	18.40	Apr. 28	c20.47	July 28	c21.76
Nov. 29	c17.81	Feb. 25	c17.79	May 27	c17.38	Aug. 31	c20.99
Dec. 27	c17.63	Mar. 25	17.06	June 22	c17.06	Sept. 28	19.99
Jan. 31, 1957	c17.50	Apr. 30	c15.66	July 27	c20.04	Oct. 26	c18.98
Feb. 28	c17.32	May 28	c17.76	Aug. 24	c17.88	Nov. 23	c18.11
Mar. 20	c17.31	June 26	c16.49	Sept. 30	c17.54	Dec. 28	c17.42

c Nearby well being pumped.

## Santa Maria Valley

9/33-2A1. Santa Maria Realty Co. Garey. Wicks and Andrews Aves. Drilled irrigation water-table well in alluvium and Paso Robles Formation of Pliocene and Pleistocene (?) age, diam 12 in, depth 168 ft. Lsd 378.72 ft above msl. MP north side of west edge of steel pump-base support, 0.60 ft above lsd. Highest water level 23.62 below lsd, June 4, 1941; lowest 96.19 below lsd, June 21, 1960. Records available: 1930-33, 1936, 1938-60.

Jan. 1, 1956	g77.52	Mar. 20, 1957	79.09	Jan. 1, 1959	g64.60	Jan. 29, 1960	73.56
27	77.40	Apr. 1	g80.34	26	64.86	Feb. 26	73.69
Feb. 29	73.43	24	80.50	Feb. 26	64.40	Mar. 28	82.47
Mar. 28	73.36	July 1	g88.50	Mar. 31	63.88	Apr. 1	g75.20
Apr. 1	g72.50	Oct. 1	g91.62	Apr. 1	g63.86	26	88.80
May 31	72.58	Jan. 30, 1958	86.73	20	63.94	May 26	89.38
June 26	73.86	Feb. 24	82.23	May 27	64.50	June 21	96.19
July 1	g86.66	Mar. 25	76.45	June 22	65.37	July 1	g78.55
Aug. 29	77.50	Apr. 30	58.64	July 1	g65.67	27	80.46
Sept. 26	77.50	May 28	55.30	Sept. 30	67.51	Sept. 1	82.45
Oct. 1	g80.20	June 23	b58.13	Oct. 1	g70.10	28	82.09
25	78.78	July 26	61.68	28	80.67	Oct. 1	g82.58
Dec. 27	77.23	Sept. 23	62.70	Nov. 24	73.02	26	82.79
Jan. 1, 1957	g79.60	Oct. 29	63.50	Dec. 29	72.93	Nov. 23	83.02
31	80.91	Nov. 26	64.03	Jan. 1, 1960	g73.08	Dec. 28	83.69
Feb. 28	80.07	Dec. 31	63.37				

b Well pumped recently.

g Measurement made by Santa Maria Valley Water Conservation District.

9/34-3N1. Formerly 9/32-3N1. City of Santa Maria. Near Orcutt. Drilled unused water-table well in Paso Robles Formation of Pliocene and Pleistocene (?) age, diam 16 in, depth 248 ft, perforated 163-190. Lsd about 258 ft above msl. MP top of 2-in pipe, 0.90 ft above lsd. Highest water level 142 below lsd, June 30, July 31, 1937, June 30, 1938; lowest 184.99 below lsd, Dec. 28, 1960. Records available: 1932-34, 1937-41, 1955-60.

Jan. 26, 1956	c180.95	Apr. 23, 1957	c181.67	July 30, 1958	c183.00	Oct. 28, 1959	c184.17
Feb. 29	c181.02	May 29	c181.71	Aug. 26	c183.11	Nov. 24	c184.03
Mar. 29	c181.35	June 26	c182.93	Sept. 23	c183.18	Dec. 29	c184.25
Apr. 24	c181.32	July 25	c181.87	Oct. 29	c183.29	Feb. 1, 1960	184.20
May 31	c181.24	Aug. 22	c182.09	Nov. 26	c182.89	26	184.15
June 26	c181.46	Sept. 27	c182.27	Dec. 31	c181.49	Mar. 28	c184.29
July 25	c181.91	Oct. 31	c182.98	Jan. 27, 1959	c183.25	Apr. 26	c184.29
Aug. 29	c181.70	Nov. 26	c181.31	Feb. 26	c183.24	May 26	c184.41
Sept. 25	c181.63	Dec. 27	c182.24	Mar. 31	c183.21	June 21	c184.46
Oct. 25	c181.88	Jan. 30, 1958	c182.21	Apr. 28	c183.06	July 28	c184.59
Nov. 29	c181.78	Feb. 25	c181.89	May 27	c183.49	Aug. 31	c184.62
Dec. 27	c181.35	Mar. 25	c182.26	June 22	c183.71	Sept. 28	c184.95
Jan. 31, 1957	c181.86	Apr. 30	c182.33	July 27	c184.03	Oct. 26	c185.13
Feb. 28	c180.73	May 28	c182.21	Aug. 25	c184.15	Nov. 23	c184.63
Mar. 20	c181.10	June 23	c182.71	Sept. 30	c184.31	Dec. 28	184.99

c Nearby well being pumped.

10/33-19B1. Owen T. Rice. Near Santa Maria. Battles and East Stowell Rds. Drilled irrigation water-table well in alluvium and Paso Robles Formation of Pliocene and Pleistocene (?) age, diam 16 in, depth 307 ft, perforated 92-97, 116-125, 190-215, 238-248. Lsd about 275 ft above msl. MP bottom west edge of pumpbase through hole in concrete foundation, 0.20 ft above lsd. Highest water level 73.31 below lsd, Sept. 2, 1943; lowest 168.40 below lsd, July 1, 1960. Records available: 1927, 1929-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 1, 1958	g133.90	Apr. 1, 1957	g125.50	May 28, 1958	135.48	Jan. 1, 1960	g141.46
27	119.05	24	120.18	June 24	j128±	Mar. 28	j136.2
Feb. 29	122.30	May 29	120.51	Aug. 26	j135.7	Apr. 1	g136.85
Apr. 1	g136.45	July 1	g155.10	Oct. 29	j136.0	28	(a)
July 1	g152.55	25	128.00	Nov. 26	j126.1	May 25	(a)
Aug. 29	127.97	Sept. 27	128.26	Dec. 31	j125.5	June 21	j162.6
Sept. 25	128.88	Oct. 1	g162.78	Jan. 26, 1959	j121.9	July 1	g168.40
Oct. 1	g155.50	30	122.13	Feb. 26	j115.7	27	(a)
Nov. 29	123.40	30	g154.10	Mar. 31	j115.5	Sept. 1	j168.3
Dec. 27	121.55	Nov. 26	j153.49	Apr. 1	g120.80	28	j168.2
Jan. 1, 1957	g144.20	Dec. 27	j150.50	May 27	j134.4	Oct. 1	g163.25
31	115.89	Feb. 2, 1958	j139.90	June 22	j135.9	26	j164.2
Feb. 28	115.50	Mar. 25	j139.62	July 1	g120.00	Nov. 23	j149.8
Mar. 20	116.05	Apr. 30	j146.01	Oct. 1	g127.38	Dec. 28	j149.5

a Well being pumped.

b Well pumped recently.

g Measurement made by Santa Maria Valley Water Conservation District.

j Sounder measurement.

10/34-14B2. City of Santa Maria. Santa Maria Valley RR. and U. S. Highway 101. Drilled unused (previously reported public-supply) water-table well in Paso Robles Formation of Pliocene and Pleistocene (?) age, diam 16 in, depth 182 ft. Lsd about 225 ft above msl. MP top of 1½-in pipe, 0.30 ft below lsd. Highest water level 104.10 below lsd, Jan. 7, 1942; lowest 162.94 below lsd, Oct. 31, 1957. Records available: 1942, 1955-60.

Jan. 26, 1958	152.34	Apr. 23, 1957	156.74	Aug. 26, 1958	157.88	Nov. 24, 1959	155.26
Feb. 29	151.93	May 29	158.07	Sept. 23	155.11	Dec. 29	154.63
Mar. 30	154.49	June 26	160.01	Oct. 29	c153.99	Jan. 28, 1960	153.91
Apr. 24	153.18	Aug. 22	e164	Nov. 26	151.28	Feb. 26	153.99
May 31	156.44	Sept. 27	e166.6	Dec. 31	149.33	Mar. 28	152.98
June 26	156.12	Oct. 31	162.94	Jan. 26, 1959	148.42	Apr. 26	154.05
July 25	157.49	Nov. 26	162.40	Feb. 26	146.38	May 26	d156.79
Aug. 29	158.84	Dec. 27	161.43	Mar. 31	147.42	June 21	160.11
Sept. 25	157.97	Jan. 30, 1958	161.22	Apr. 28	c147.55	July 28	c160.75
Oct. 25	158.49	Feb. 25	160.06	May 27	c149.03	Sept. 1	d162.14
Nov. 29	159.68	Mar. 25	159.36	June 22	c150.15	28	d163.20
Dec. 27	c165.31	Apr. 30	c160.62	July 28	c151.18	Oct. 26	d163.69
Jan. 31, 1957	157.74	May 28	c160.28	Aug. 25	c153.68	Nov. 23	161.49
Feb. 28	156.52	June 24	c160.27	Sept. 30	c154.03	Dec. 28	161.29
Mar. 20	155.83	July 30	158.15	Oct. 28	155.40		

c Nearby well being pumped.

e Estimated.

10/35-7F1. M. J. Ellis. Near Guadalupe. Drilled domestic and irrigation artesian well in alluvium and Paso Robles Formation of Pliocene and Pleistocene (?) age, diam 12 in, depth 249 ft, perforated 140-145, 200-225. Lsd about 48 ft above msl. MP top east side of pumpbase through hole, 1.80 ft above lsd. Highest water level flowing, Dec. 30, 1943, Feb. 29, 1944; lowest 24.55 below lsd, July 1, 1956. Records available: 1929-36, 1938-60.

Jan. 1, 1956	g12.00	Feb. 28, 1957	9.59	Jan. 27, 1959	11.65	Feb. 26, 1960	(a)
26	10.18	Mar. 20	14.73	Feb. 26	10.55	Mar. 28	15.09
Feb. 29	12.35	Apr. 1	g29.50	Apr. 1	g18.10	Apr. 1	g16.63
Apr. 1	g18.02	23	17.62	May 27	19.31	26	(a)
24	c18.56	July 1	g27.50	June 22	21.09	May 26	(a)
May 31	c19.19	Oct. 1	g23.36	July 1	g23.48	June 21	(a)
June 26	23.00	Dec. 27	14.29	Aug. 25	22.66	July 1	g23.90
July 1	g24.55	Jan. 30, 1958	14.28	Sept. 30	21.99	28	(a)
25	23.71	Feb. 25	12.86	Oct. 1	g17.30	Aug. 31	(a)
Aug. 29	22.40	Mar. 25	12.42	28	20.93	Sept. 28	(a)
Sept. 25	22.10	Apr. 30	14.60	Nov. 24	20.08	Oct. 1	g24.24
Oct. 1	g23.40	July 30	22.88	Dec. 29	14.49	26	(a)
25	18.21	Nov. 26	19.31	Jan. 1, 1960	g14.75	Nov. 23	15.99
Jan. 1, 1957	g16.45	Dec. 31	18.38	Feb. 2	14.23	Dec. 28	15.25
31	12.72	Jan. 1, 1959	g18.26				

a Well being pumped.

b Well pumped recently.

c Nearby well being pumped.

g Measurement made by Santa Maria Valley Water Conservation District.

## Cuyama Valley

9/24-19Q1. Sam Knittle. Drilled unused water-table well in alluvium, diam 6 in, depth 90 ft. Lsd 2,784.19 ft above msl. MP top of 1½-in pipe, 0.52 ft above lsd. Highest water level 16.13 below lsd, May 30, 1944; lowest 83.58 below lsd, Jan. 29, 1958. Records available: 1941-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27, 1956	76.48	Apr. 24, 1957	78.46	July 29, 1958	71.38	Oct. 29, 1959	71.94
Feb. 28	76.31	May 28	78.67	Aug. 27	71.18	Nov. 23	67.70
Mar. 27	76.62	June 25	80.02	Sept. 22	70.91	Dec. 30	67.32
Apr. 26	76.66	July 24	79.44	Oct. 27	70.46	Jan. 27, 1960	67.20
May 29	76.95	Aug. 21	80.15	Nov. 24	70.01	Feb. 25	67.01
June 28	77.27	Sept. 26	80.36	Dec. 30	69.67	Mar. 29	67.53
July 24	77.73	Oct. 29	80.31	Jan. 28, 1959	70.97	Apr. 27	67.77
Aug. 28	77.93	Nov. 27	80.30	Feb. 27	68.91	May 24	67.77
Sept. 27	77.89	Dec. 26	80.32	Mar. 30	68.48	June 22	67.93
Oct. 24	77.90	Jan. 29, 1958	83.58	Apr. 24	68.04	July 26	68.15
Nov. 27	77.95	Feb. 24	80.30	May 25	68.15	Aug. 30	c69.56
Dec. 28	77.83	Mar. 24	79.65	June 24	c68.58	Sept. 27	68.84
Jan. 30, 1957	79.86	Apr. 28	75.02	July 29	67.99	Oct. 25	c71.37
Feb. 26	78.53	May 26	72.67	Aug. 26	68.14	Nov. 22	69.15
Mar. 21	77.97	June 24	71.57	Sept. 28	67.98	Dec. 27	73.24

c Nearby well being pumped.

10/25-30P1. Presseler and Kirschenmann. Two mi southeast of Cuyama. Drilled unused water-table well in alluvium and older continental deposits, diam 16 in, depth 400 ft. Lsd about 2,340 ft above msl. MP edge of steel plate, at lsd. Highest water level 109.55 below lsd, Jan. 30, 1957; lowest 141.91 below lsd, Sept. 27, 1960. Records available: 1955-60.

Apr. 13, 1955	113.58	Oct. 29, 1957	118.16	Nov. 24, 1958	120.40	Dec. 30, 1959	127.52
Oct. 24, 1956	116.13	Nov. 27	117.29	Dec. 30	121.84	Jan. 27, 1960	127.22
Nov. 27	111.98	Dec. 26	c116.00	Jan. 28, 1959	126.10	Feb. 25	c126.79
Dec. 28	111.16	Jan. 29, 1958	c115.25	Mar. 30	124.48	Mar. 29	c133.08
Jan. 30, 1957	109.55	Feb. 24	115.08	Apr. 24	124.84	Apr. 27	c130.86
Feb. 26	112.34	Mar. 24	115.37	May 25	138.66	May 24	c138.61
Mar. 21	113.97	Apr. 28	c117.01	June 24	133.62	June 22	139.50
Apr. 24	117.54	May 26	c122.34	July 29	135.25	Aug. 30	141.29
May 28	117.99	July 29	c129.96	Aug. 26	135.49	Sept. 27	141.91
June 25	118.30	Aug. 27	130.87	Sept. 28	135.94	Oct. 25	136.75
July 24	c129.02	Sept. 22	130.99	Oct. 29	128.98	Nov. 22	136.43
Aug. 21	c130.08	Oct. 27	122.49	Nov. 23	129.59	Dec. 27	129.60
Sept. 26	118.15						

c Nearby well being pumped.

10/27-12R1. William Kirschenmann Estate. Drilled domestic and irrigation water-table well in alluvium, diam 12 in, depth 131 ft, cased to 131, perforated 53-128. Lsd about 2,036 ft above msl. MP inner edge of bottom hand hole east side of pumpbase, 0.90 ft above lsd. Highest water level 38.58 below lsd, Apr. 28, 1942; lowest 72.99 below lsd, Aug. 26, 1959. Records available: 1941-60.

Jan. 27, 1956	53.63	Mar. 21, 1957	54.20	Aug. 27, 1958	53.83	Dec. 30, 1959	64.40
Feb. 28	52.65	Apr. 24	54.65	Oct. 27	54.89	Jan. 27, 1960	62.29
Mar. 27	53.33	May 28	59.89	Nov. 24	53.21	Feb. 25	61.21
Apr. 26	55.85	June 26	60.43	Dec. 30	52.39	Mar. 29	64.45
May 29	54.49	July 24	c62.73	Jan. 28, 1959	54.28	Apr. 27	65.79
June 28	54.89	Aug. 21	61.99	Feb. 27	52.66	May 24	(a)
July 24	55.67	Sept. 26	62.17	Mar. 30	51.51	June 21	68.77
Aug. 28	55.99	Oct. 29	60.22	Apr. 24	b59.13	July 26	69.05
Sept. 27	62.72	Nov. 27	60.16	May 25	59.21	Aug. 30	(a)
Oct. 24	59.55	Dec. 27	57.84	June 24	b65.65	Sept. 27	(a)
Nov. 27	59.95	Feb. 24, 1958	55.70	Aug. 26	72.99	Oct. 25	(a)
Dec. 28	55.95	Mar. 24	55.27	Sept. 28	70.21	Nov. 22	71.91
Jan. 30, 1957	54.80	Apr. 28	54.25	Oct. 29	71.93	Dec. 27	71.02
Feb. 26	54.74	June 24	55.17	Nov. 23	71.48		

a Well being pumped.

b Well pumped recently.

Siskiyou County

## Scott Valley

44/9-28P1. F. R. Simpson. About 3 mi northeast of Ft. Jones. Drilled unused water-table well in younger alluvium of Quaternary age, diam 8 in, depth 65 ft. Lsd 2, 711 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 3.8 below lsd, Apr. 26, 1954; lowest 26.7 below lsd, Dec. 17, 1959, Jan. 28, 1960. Records available: 1953-54, 1958-60. No measurement made 1955-57.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 12, 1953	17.8	Apr. 23, 1959	12.1	Nov. 19, 1959	25.8	June 22, 1960	8.5
Apr. 26, 1954	3.8	May 20	5.3	Dec. 17	26.7	July 21	7.5
Oct. 16, 1958	21.8	June 24	8.6	Jan. 28, 1960	26.7	Aug. 24	15.5
Nov. 19	24.1	July 22	9.7	Feb. 18	17.8	Sept. 21	15.4
Dec. 18	24.7	Aug. 26	16.9	Mar. 29	11.2	Oct. 26	24.0
Jan. 21, 1959	21.9	Sept. 23	18.7	Apr. 27	9.5	Nov. 16	25.8
Feb. 17	15.7	Oct. 28	24.2	May 25	8.1	Dec. 29	21.9
Mar. 19	9.6						

42/9-27N1. Joe Starr. About 1 mi east of Etna. Dug unused water-table well in younger alluvium of Quaternary age, size 5 x 5 ft, depth 19 ft. Lsd 2, 930 ft above msl. MP top of board cover, 1.10 ft above lsd. Highest water level 1.3 below lsd, May 20, 1959, May 25, 1960; lowest 9.8 below lsd, Sept. 23, 1959. Records available: 1953-54, 1958-60. No measurement made 1955-57.

July 14, 1953	1.6	Jan. 21, 1959	2.8	Sept. 23, 1959	9.8	May 25, 1960	1.3
Aug. 3	2.2	Feb. 17	2.8	Oct. 28	7.7	June 22	2.1
Sept. 14	6.0	Mar. 19	2.9	Nov. 19	6.7	July 21	4.8
Oct. 5	6.7	Apr. 23	2.3	Dec. 17	6.3	Aug. 24	7.7
Apr. 30, 1954	3.0	May 20	1.3	Jan. 28, 1960	4.8	Sept. 21	8.7
Oct. 16, 1958	5.1	June 24	2.4	Feb. 18	2.1	Oct. 26	8.6
Nov. 17	5.3	July 22	6.4	Mar. 29	4.6	Nov. 16	6.8
Dec. 18	5.7	Aug. 26	8.6	Apr. 27	2.8	Dec. 29	3.6

## Shasta Valley

45/6-19E1. George Weldon. 3 mi east of Yreka. Drilled domestic water-table well in Chicot Formation of Late Cretaceous age, and perhaps into basement complex, diam 16 in, depth 425 ft. Lsd 2, 538 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 17.5 below lsd, Apr. 28, 1960; lowest 22.6 below lsd, Oct. 5, 1953. Records available: 1953-54, 1958-60. No measurement made 1955-57.

July 13, 1953	18.7	Jan. 21, 1959	19.7	Sept. 24, 1959	20.8	May 25, 1960	b18.9
Aug. 3	20.7	Feb. 17	18.7	Oct. 29	21.9	June 23	b25.0
Sept. 14	20.6	Mar. 19	18.1	Nov. 19	b20.1	July 20	b27.9
Oct. 5	22.6	Apr. 23	a21.1	Dec. 17	22.1	Aug. 24	22.5
Nov. 16	21.4	May 20	b30.5	Jan. 28, 1960	20.9	Sept. 21	21.8
May 6, 1954	20.4	June 24	19.7	Feb. 18	18.8	Oct. 26	21.1
Oct. 16, 1958	19.3	July 22	19.7	Mar. 29	18.4	Nov. 16	20.7
Nov. 19	19.3	Aug. 26	22.1	Apr. 28	17.5	Dec. 29	18.6
Dec. 18	19.8						

a Well being pumped.

b Well pumped recently.

44/5-34H1. Henry Silva. 1.75 mi north of Big Springs. Drilled irrigation water-table well in Plutos Cave Basalt of Recent age, diam 16 in, depth 96 ft. Lsd 2, 637 ft above msl. MP north side of pumpbase, at lsd. Highest water level 24.9 below lsd, July 22, Aug. 27, 1959; lowest 30.0 below lsd, Nov. 19, 1959. Records available: 1953-54, 1958-60. No measurement made 1955-57.

July 16, 1953	29.0	Jan. 21, 1959	28.8	Sept. 24, 1959	(a)	May 25, 1960	28.1
Aug. 10	26.4	Feb. 17	29.2	Oct. 29	26.6	June 22	(a)
Sept. 14	26.0	Mar. 19	(a)	Nov. 19	30.0	July 21	26.3
Oct. 5	26.7	Apr. 23	28.3	Dec. 17	28.7	Aug. 24	25.4
Nov. 16	28.3	May 20	(a)	Jan. 28, 1960	29.5	Sept. 21	25.8
May 5, 1954	28.6	June 24	(a)	Feb. 18	29.6	Oct. 26	26.5
Oct. 16, 1958	25.7	July 22	24.9	Mar. 29	29.4	Nov. 16	27.5
Nov. 19	27.4	Aug. 27	24.9	Apr. 28	29.2	Dec. 29	28.4
Dec. 18	28.3						

a Well being pumped.

## GROUND-WATER LEVELS, 1956-60, SOUTHWESTERN STATES

42/6-10J1. G. G. Maxwell. About 8 mi northwest of Weed. Drilled domestic water-table well in pyroclastics, diam 6 in, depth 110 ft. Lsd 2,835 ft above msl. MP top of casing, 0.30 ft above lsd. Highest water level 2.9 below lsd, May 3, 1954; lowest 15.9 below lsd, Sept. 21, 1960. Records available: 1953-54, 1958-60. No measurement made 1955-57.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 16, 1953	3.0	Jan. 21, 1959	8.9	Sept. 24, 1959	14.4	May 26, 1960	4.3
Aug. 3	5.8	Feb. 17	8.8	Oct. 29	14.5	June 22	6.9
Sept. 14	7.7	Mar. 19	7.9	Nov. 19	13.7	July 21	11.8
Oct. 5	14.2	Apr. 23	b5.6	Dec. 17	11.5	Aug. 24	15.1
31	9.3	May 20	5.1	Jan. 28, 1960	11.3	Sept. 21	15.9
May 3, 1954	2.9	June 24	9.6	Feb. 18	10.3	Oct. 26	15.3
Oct. 16, 1958	11.2	July 22	11.5	Mar. 29	5.1	Nov. 16	14.2
Nov. 19	9.8	Aug. 27	14.5	Apr. 28	5.3	Dec. 29	8.7
Dec. 18	9.8						

b Well pumped recently.

Butte Valley

46/1E-6N1. Leo Luzzi. About 4 mi west-northwest of Macdoel. Drilled irrigation water-table well in lake deposits, diam 18 in, depth 200 ft. Lsd 4,242.4 ft above msl. MP top east side of concrete base, 1.00 ft above lsd. Highest water level 17.5 below lsd, Mar. 19, 1959; lowest 29.9 below lsd, Aug. 24, 1960. Records available: 1953-54, 1958-60. No measurement made 1955-57.

Oct. 20, 1953	24.1	Mar. 19, 1959	17.5	Nov. 19, 1959	20.5	June 23, 1960	27.3
May 3, 1954	22.7	Apr. 23	18.6	Dec. 17	19.8	July 21	28.0
Aug. 23	24.8	May 21	20.9	Jan. 28, 1960	19.4	Aug. 24	29.9
Oct. 17, 1958	18.7	June 25	26.8	Feb. 18	19.1	Sept. 21	24.0
Nov. 19	18.3	July 22	28.6	Mar. 30	18.9	Oct. 26	22.4
Dec. 19	17.9	Aug. 27	27.4	Apr. 28	19.0	Nov. 16	21.9
Jan. 21, 1959	17.7	Sept. 24	23.0	May 26	20.4	Dec. 29	21.0
Feb. 17	18.5	Oct. 29	21.2				

47/1W-14B1. U. S. Bureau of Reclamation. About 3.4 mi southwest of Dorris. Drilled observation water-table well in lake deposits, diam 2 in, depth 50 ft. Lsd 4,233.7 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 11.4 below lsd, Jan. 21, 1959; lowest 18.5 below lsd, Nov. 26, 1951. Records available: 1951-54, 1958-60. No measurement made 1955-57.

Nov. 26, 1951	18.5	Dec. 15, 1952	14.6	Mar. 19, 1959	11.8	Feb. 18, 1960	12.3
Jan. 9, 1952	15.0	Jan. 5, 1953	14.6	Apr. 23	11.8	Mar. 30	12.4
Feb. 5	14.3	Feb. 9	13.4	May 21	11.8	Apr. 28	12.4
Mar. 7	13.9	Mar. 3	13.4	June 25	11.9	May 26	12.5
Apr. 1	14.0	Apr. 6	13.7	July 22	11.9	June 23	12.5
May 7	14.0	Oct. 27	14.3	Aug. 27	14.1	July 21	12.5
June 2	14.1	May 5, 1954	13.9	Sept. 24	12.2	Aug. 24	12.7
July 10	14.1	Sept. 28	14.3	Oct. 29	12.3	Sept. 21	12.8
Aug. 26	14.3	Dec. 19, 1958	11.6	Nov. 19	12.3	Oct. 26	12.9
Sept. 25	14.4	Jan. 21, 1959	11.4	Dec. 17	12.3	Nov. 16	13.0
Nov. 12	14.3	Feb. 17	11.7	Jan. 28, 1960	12.3	Dec. 29	12.9

48/1W-26N1. Fairless. About 2 mi west of Dorris. Drilled unused water-table well in lake deposits, diam 10 in, depth 375 ft, open bottom. Lsd 4,244.2 ft above msl. MP top of casing, at lsd. Highest water level 9.2 below lsd, May 5, 1954; lowest 20.8 below lsd, Oct. 26, 1960. Records available: 1953-54, 1958-60. No measurement made 1955-57.

Nov. 1, 1953	13.7	Apr. 23, 1959	15.6	Nov. 19, 1959	18.5	June 23, 1960	18.9
May 5, 1954	9.2	May 21	15.8	Dec. 17	18.4	July 21	19.8
Nov. 20, 1958	15.4	June 25	16.3	Jan. 28, 1960	18.2	Aug. 24	20.4
Dec. 19	15.8	July 22	17.0	Feb. 18	17.7	Sept. 21	20.4
Jan. 21, 1959	15.8	Aug. 27	17.6	Mar. 30	18.2	Oct. 26	20.8
Feb. 17	15.9	Sept. 24	17.6	Apr. 28	18.1	Nov. 16	20.4
Mar. 19	15.7	Oct. 29	18.4	May 26	18.1	Dec. 29	20.6

Solano County

## Putah and Suisun-Fairfield Area

6/1W-11G1. Richfield Oil. About 8 mi southwest of Dixon. Drilled domestic water-table well in alluvium of Recent age, diam 8 in, depth 93 ft. Lsd 87 ft above msl. MP top of casing, 3.50 ft below lsd. Highest water level 12.1 below lsd, May 6, 1938; lowest 38.9 below lsd, Oct. 6, 1960. Records available: 1931-42, 1949-51, 1958-60. Well destroyed; measurement discontinued.

6/1W-11G1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 18, 1931	16.6	Mar. 29, 1939	19.6	Oct. 29, 1958	30.4	Dec. 4, 1959	35.9
Apr. 28, 1932	16.4	Nov. 2	19.8	Dec. 3	30.2	Jan. 8, 1960	35.5
Dec. 2	17.6	May 2, 1940	18.0	Jan. 6, 1959	31.0	Feb. 8	34.8
Apr. 8, 1933	17.7	Oct. 21	20.0	Feb. 2	b31.6	Mar. 2	35.1
Nov. 17	19.2	May 8, 1941	15.5	Mar. 4	30.8	Apr. 5	34.3
Apr. 1, 1934	19.4	Nov. 16	17.9	Apr. 6	31.9	May 4	a35.9
Nov. 19	19.2	May 26, 1942	17.0	May 11	a33.7	June 1	34.3
Apr. 26, 1935	18.2	Nov. 9	17.7	June 2	a35.3	July 6	36.4
Nov. 13	19.4	Jan. 18, 1949	24.6	July 7	a37.0	Aug. 3	37.2
Apr. 22, 1936	18.1	Nov. 10	29.1	Aug. 10	35.9	Sept. 6	a39.3
Nov. 24	19.4	Apr. 6, 1950	27.9	Sept. 1	36.2	Oct. 6	38.9
Oct. 13, 1937	19.0	Nov. 21, 1951	33.1	Oct. 9	36.0	Nov. 3	38.7
May 6, 1938	12.1	Oct. 8, 1958	30.5	Nov. 6	36.2	Dec. 8	37.8
Oct. 26	20.0						

a Well being pumped.

b Well pumped recently.

Sonoma County

## Sonoma Valley

5/5-29N1. Moll. About 3 mi south of Sonoma. Drilled irrigation water-table well in younger and older alluvium, diam 10 in, depth 100 ft. Lsd 16 ft above msl. MP top east side of casing, 0.10 ft above lsd. Highest water level 6.7 below lsd, Apr. 3, 1956; lowest 15.8 below lsd, Sept. 1, 1959. Records available: 1951-60.

Aug. 16, 1951	14.7	Oct. 27, 1958	b25.5	Aug. 10, 1959	b14.0	May 4, 1960	10.1
Nov. 21, 1952	12.8	Dec. 1	13.8	Sept. 1	15.8	June 1	11.2
Apr. 17, 1953	10.4	Jan. 6, 1959	12.4	Oct. 9	13.7	July 6	12.6
Oct. 27	13.9	Feb. 2	11.8	Nov. 6	14.0	Aug. 3	13.6
Apr. 2, 1954	8.4	Mar. 4	8.3	Dec. 4	14.0	Sept. 6	14.2
Apr. 1, 1955	9.6	Apr. 6	9.1	Jan. 8, 1960	13.5	Oct. 6	13.9
Apr. 3, 1956	6.7	May 11	11.9	Feb. 8	10.6	Nov. 3	14.2
Mar. 13, 1957	11.6	June 2	11.2	Mar. 2	9.8	Dec. 8	12.4
Sept. 30, 1958	b25.4	July 8	b15.4	Apr. 5	9.7		

b Well pumped recently.

5/5-8Q1. O. H. Thomas. 0.5 mi east of Sonoma. Drilled irrigation water-table well in younger and older alluvium, diam 8 in, depth 500 ft. Lsd 107 ft above msl. MP top east side of casing, 0.50 ft above lsd. Highest water level 0.5 above lsd, Apr. 4, 1950; lowest 30.8 below lsd, Dec. 1, 1958. Records available: 1950, 1952-54, 1956-60. No measurement made in 1951 or 1955.

Apr. 4, 1950	j+0.5	Jan. 6, 1959	-19.5	Sept. 1, 1959	(a)	May 4, 1960	-11.5
Apr. 9, 1952	-8.4	Feb. 2	9.5	Oct. 9	-28.3	June 1	12.1
Apr. 17, 1953	26.1	Mar. 4	7.5	Nov. 6	29.6	July 6	14.0
Apr. 2, 1954	8.4	Apr. 6	10.7	Dec. 4	29.2	Aug. 3	17.0
Apr. 3, 1956	9.7	May 11	12.6	Jan. 8, 1960	15.8	Sept. 6	24.7
Mar. 13, 1957	8.6	June 2	13.7	Feb. 8	9.2	Oct. 6	27.8
Sept. 30, 1958	18.4	July 8	15.5	Mar. 2	9.6	Nov. 3	28.4
Oct. 27	24.5	Aug. 10	25.4	Apr. 5	9.5	Dec. 8	10.4
Dec. 1	30.8						

a Well being pumped.

j Flowing.

## Santa Rosa-Petaluma Area

6/8-7P2. Joseph Kardohely. About 5 mi southwest of Santa Rosa. Drilled domestic and irrigation water-table well in Merced Formation of Pliocene and Pleistocene (?) age, diam 8 in, depth 120 ft. Lsd 95 ft above msl. MP top west side of casing, 1.30 ft above lsd. Highest water level 10.6 below lsd, Mar. 22, 1950, Apr. 4, 1952; lowest 33.5 below lsd, Sept. 15, 1950. Records available: 1945, 1949-60.

June 16, 1945	22.7	Aug. 9, 1950	a54.8	Apr. 4, 1952	10.6	Oct. 1, 1958	28.4
Sept. 2	22.2	Sept. 15	33.5	Nov. 20	26.0	27	25.4
Nov. 2, 1949	27.7	Oct. 18	24.5	Apr. 17, 1953	b20.2	Dec. 1	24.4
Dec. 9	19.7	Dec. 29	12.8	Nov. 3	26.4	Jan. 6, 1959	24.1
Mar. 22, 1950	10.6	Apr. 11, 1951	11.6	Apr. 2, 1954	13.7	Feb. 2	17.4
May 3	a20.5	June 7	20.3	Apr. 1, 1955	14.8	Mar. 4	16.1
June 15	b29.2	Oct. 16	23.1	Apr. 4, 1956	18.0	Apr. 6	14.2
July 13	20.1	Dec. 6	20.9	Mar. 14, 1957	16.5	May 11	18.1

## 6/8-7P2--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
June 3, 1959	20.1	Nov. 7, 1959	27.6	Apr. 6, 1960	17.5	Sept. 7, 1960	26.3
July 8	32.6	Dec. 5	29.3	May 5	15.3	Oct. 6	25.7
Aug. 11	27.3	Jan. 9, 1960	29.7	June 1	b40.6	Nov. 3	27.3
Sept. 1	30.9	Feb. 8	19.1	July 6	25.0	Dec. 8	23.7
Oct. 10	31.6	Mar. 2	17.0	Aug. 3	26.4		

a Well being pumped.

b Well pumped recently.

## Lower Russian River Area

7/11-14E1. Morrill. About 5 mi southwest of Gurneville. Drilled unused water-table well in younger alluvium, diam 10 in, depth 47 ft. Lsd 25 ft above msl. MP top of casing, 4.00 ft above lsd. Highest water level 6.9 below lsd, Mar. 4, 1959; lowest 21.2 below lsd, Oct. 2, 1958. Records available: 1951, 1958-60.

Sept. 12, 1951	19.1	Apr. 6, 1959	17.6	Nov. 7, 1959	19.0	July 7, 1960	19.1
Oct. 2, 1958	21.2	May 11	14.0	Dec. 5	15.2	Aug. 3	19.4
28	18.2	June 3	19.3	Jan. 9, 1960	15.9	Sept. 7	19.2
Dec. 2	16.5	July 8	19.3	Mar. 2	17.8	Oct. 6	19.2
Jan. 6, 1959	14.8	Aug. 11	19.3	Apr. 6	17.2	Nov. 3	17.0
Feb. 2	17.5	Sept. 2	19.2	May 5	18.4	Dec. 8	17.5
Mar. 4	6.9	Oct. 10	19.0	June 2	18.9		

## Healdsburg Area

9/9-28N1. G. P. Brown. 1 mi south of Healdsburg. Drilled stock water-table well in younger alluvium, diam 10 in, depth 53 ft. Lsd 90 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 7.6 below lsd, Feb. 9, 1960; lowest 21.8 below lsd, Nov. 4, 1960. Records available: 1953-54, 1958-60. No measurement made 1955-57.

Aug. 1953	19.0	Mar. 5, 1959	12.6	Nov. 7, 1959	20.9	June 2, 1960	14.2
May 21, 1954	12.9	Apr. 7	13.6	Dec. 5	21.5	July 7	16.8
June 23	a15.4	May 12	14.2	Jan. 9, 1960	15.3	Aug. 4	18.2
Oct. 1, 1958	a19.5	June 3	a16.2	Feb. 9	7.6	Sept. 7	20.3
28	20.4	July 9	18.3	Mar. 3	13.3	Oct. 7	21.4
Dec. 2	21.1	Aug. 11	20.3	Apr. 6	13.2	Nov. 4	21.8
Jan. 7, 1959	12.4	Sept. 2	a22.1	May 5	13.8	Dec. 9	13.1
Feb. 3	12.2	Oct. 10	20.5				

a Well being pumped.

## Cloverdale Area

11/10-19F2. State Division of Forestry. 1 mi south of Cloverdale. Drilled unused artesian well in Franciscan Formation of Late Jurassic to Late Cretaceous age, and Knoxville Formation of Late Jurassic age, diam 8 in, depth 160 ft, cased to 135, perforated 116-135. Lsd 346 ft above msl. MP top west side of casing, 1.50 ft above lsd. Highest water level 3.0 below lsd, Apr. 1, 1954; lowest 14.1 below lsd, Nov. 7, Dec. 5, 1959. Records available: 1952-55, 1958-60. No measurement made 1956-57.

Apr. 3, 1952	3.6	Dec. 2, 1958	12.1	Sept. 2, 1959	13.3	May 5, 1960	4.0
Nov. 19	a21.5	Jan. 7, 1959	10.8	Oct. 10	13.6	June 2	5.4
Apr. 16, 1953	3.8	Feb. 3	3.7	Nov. 7	14.1	July 7	8.2
Apr. 1, 1954	3.0	Mar. 5	3.3	Dec. 5	14.1	Aug. 4	10.5
May 20	5.4	Apr. 7	3.9	Jan. 9, 1960	13.5	Sept. 7	12.5
Aug. 11	b18.4	May 12	4.3	Feb. 9	3.7	Oct. 7	13.5
Mar. 29, 1955	4.0	June 3	7.0	Mar. 3	3.7	Nov. 4	14.0
Oct. 2, 1958	12.4	July 9	10.3	Apr. 6	3.3	Dec. 9	7.2
28	13.0	Aug. 11	12.4				

a Well being pumped.

b Well pumped recently.

## Yolo County

## Putah and Suisun-Fairfield Area

8/1E-15B1. Frank E. Russell. About 6 mi west of Davis. Drilled stock water-table well in alluvium of Recent age, diam 10 in, depth 116 ft. Lsd 83.48 ft above msl. MP top south side of casing, 2.00 ft above lsd. Highest water level 13.8 below lsd, May 16, 1941; lowest 33.1 below lsd, Nov. 3, Dec. 8, 1960. Records available: 1931-42, 1948-51, 1958-60.

8/1E-15B1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 21, 1931	22.6	Nov. 13, 1942	17.8	May 29, 1950	26.6	Feb. 2, 1959	26.6
June 25	23.5	June 4, 1948	25.9	July 6	27.0	Mar. 4	26.0
Sept. 2	24.1	July 1	25.5	Aug. 1	27.3	Apr. 6	25.6
Dec. 2	25.2	Aug. 6	25.0	29	28.7	May 11	23.6
May 11, 1932	22.6	Sept. 14	24.4	Sept. 25	28.9	June 2	24.2
Dec. 16	24.1	Oct. 28	24.2	Nov. 27	27.6	July 7	24.4
Apr. 15, 1933	23.2	Dec. 2	24.4	Dec. 27	26.6	Aug. 10	25.4
Nov. 27	26.1	Feb. 3, 1949	24.7	Jan. 29, 1951	26.0	Sept. 1	26.4
Apr. 7, 1934	26.0	Mar. 5	24.7	Feb. 27	25.7	Oct. 9	27.4
Nov. 26	27.0	31	24.9	Mar. 26	25.4	Nov. 6	28.6
May 2, 1935	25.1	Apr. 28	24.6	Apr. 23	26.4	Dec. 4	29.1
Nov. 19	25.8	June 2	25.3	May 18	26.3	Jan. 8, 1960	29.6
May 1, 1936	23.8	July 1	29.4	June 4	26.4	Feb. 8	29.9
Dec. 1	23.7	Aug. 5	26.4	July 2	26.7	Mar. 2	30.0
May 1, 1937	21.6	Sept. 1	26.6	Aug. 6	27.3	Apr. 5	30.1
Oct. 28	22.6	30	26.8	Sept. 4	27.7	May 4	30.3
Nov. 3, 1938	19.9	Nov. 1	26.9	Oct. 1	27.6	June 1	31.0
Mar. 31, 1939	21.5	Dec. 5	26.9	Nov. 1	27.9	July 6	31.0
Nov. 7	23.1	Jan. 3, 1950	27.0	29	27.9	Aug. 3	32.0
May 7, 1940	20.7	30	26.6	Oct. 8, 1958	26.1	Sept. 6	32.5
Oct. 26	21.8	Feb. 27	26.0	29	25.4	Oct. 6	32.9
May 16, 1941	13.8	Apr. 4	26.0	Dec. 3	25.9	Nov. 3	33.1
Nov. 19	17.9	May 4	26.0	Jan. 6, 1959	26.4	Dec. 8	33.1

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## HAWAII

By K. J. Takasaki

Systematic water-level measurements in Hawaii were begun in 1910 by the Public Works Department of the Territory of Hawaii. In 1917 the measurements were taken over by the Division of Hydrography of the Department of Public Lands, and since 1930 the observations have been made in a cooperative program carried on by the U. S. Geological Survey and the Division of Hydrography. Beginning in 1935 the records of measurements were published in the annual series of water-supply papers issued by the Geological Survey. Earlier records are published in bulletins issued by the Hawaii Division of Hydrography and prepared in cooperation with the Geological Survey. Figure 4 shows the location of observation wells included in this report.

### Well-Numbering System

Beginning with number 1 at some point on each island, drilled wells of Hawaii are numbered consecutively as they occur in geographic sequence around the island. Single wells separated from others and pumped separately are numbered individually. Wells in a closely spaced group used to supply a central pumping plant are included under a single number with each well distinguished by a letter. In some areas certain numbers are left unassigned for the designation of new wells when they are drilled. Holes drilled especially for test or observation purposes are called test borings. Test borings on each island are numbered consecutively as they are drilled, beginning with "1," and are distinguished by a "T" before each number. Shaft-type wells are numbered consecutively as they are dug and are distinguished by the word "shaft" before each number.

### Well Descriptions and Water-Level Measurements

All ground-water levels in Hawaii are reported in feet above mean sea level. A land-surface datum is an arbitrary plane for each well, test hole, or shaft which approximates the ground surface and which may be above or below the point from which the water level is measured.

#### Island of Hawaii

Shaft 6. Laupahoehoe Sugar Co. Formerly Kaiwiki Sugar Co. Ookala. Lat 20°01'05", long 155°17'15". Dug domestic and irrigation basal water-table well in basalt of Hamakua Volcanic Series, Quaternary and late Tertiary age, size 6 $\frac{1}{2}$  x 6 ft, vertical depth of 30-degree inclined shaft 300 ft; two infiltration tunnels, size 4 x 6 ft, total length 650 ft. Lsd 300 ft above msl. Highest water level 7.04 above msl, June 20, 1938; lowest 2.92 above msl, Apr. 27, 1946. Records available: 1937-60. Records furnished by Laupahoehoe Sugar Co.

Mean water level for the day, above msl, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	5.4	5.5	5.3	5.4	5.5	5.2	5.4	5.6	5.6	5.6	5.7	5.7
10	5.3	5.2	5.3	5.4	5.4	5.3	5.4	5.5	5.5	5.6	5.6	5.7
15	5.6	5.4	5.1	5.5	5.4	5.4	5.6	5.3	5.5	5.6	5.6	5.7
20	5.2	5.2	5.1	5.4	5.5	5.2	5.4	5.4	5.4	5.7	5.6	5.7
25	5.3	5.5	5.4	5.5	5.3	5.4	5.5	5.5	5.5	5.6	5.7	5.8
Eom	5.3	5.2	5.5	5.5	5.3	5.5	5.5	5.5	5.6	5.7	5.8	5.8
1957												
5	5.7	5.4	5.3	5.1	5.4	5.2	5.2	5.4	5.4	5.6	5.4	5.5
10	5.6	5.5	5.4	5.3	5.2	5.3	5.2	5.4	5.4	5.4	5.6	5.4
15	5.9	5.6	5.4	5.4	5.2	5.3	5.2	5.2	5.6	5.4	5.6	5.6
20	5.8	5.7	5.4	5.2	5.3	5.2	5.4	5.3	5.5	5.8	5.6	5.6
25	5.6	5.7	5.4	5.2	5.1	5.1	5.3	5.5	5.5	5.6	5.5	5.6
Eom	5.3	5.4	5.4	5.4	5.2	5.3	5.4	5.5	5.5	5.3	5.6	5.8

Shaft 6--Continued.

1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	5.7	6.0	6.2	5.9	6.0	6.1	6.0	6.0	6.2	6.3	6.2	6.2
10	5.7	5.9	6.2	5.9	6.0	6.1	5.9	6.1	6.1	6.1	6.2	6.3
15	5.6	6.0	6.1	5.7	6.0	6.0	5.9	6.1	6.3	6.2	6.3	6.2
20	5.7	6.0	6.0	5.9	6.0	5.9	6.1	6.1	6.2	6.3	6.2	6.3
25	5.5	5.8	6.0	5.9	6.0	6.0	6.1	6.2	6.1	6.4	6.1	6.3
Eom	5.6	6.1	5.9	6.0	6.0	5.9	6.0	6.2	6.0	6.2	6.3	6.5

1959

5	6.4	6.1	6.2	6.3	6.3	6.0	6.1	6.3	6.3	6.1	5.8	6.0
10	6.5	6.1	6.1	6.1	6.2	6.0	6.0	6.3	6.3	6.1	6.1	6.0
15	6.1	6.3	6.3	6.1	6.1	6.0	6.1	6.3	6.0	6.0	6.1	6.0
20	6.1	5.9	5.9	6.3	6.2	6.1	6.2	6.2	6.2	5.9	5.9	5.9
25	e6.1	6.2	6.2	6.3	6.1	6.1	6.1	6.3	6.1	6.1	5.9	6.1
Eom	6.1	6.2	6.2	6.3	6.2	6.0	6.1	6.3	6.1	6.1	6.0	6.0

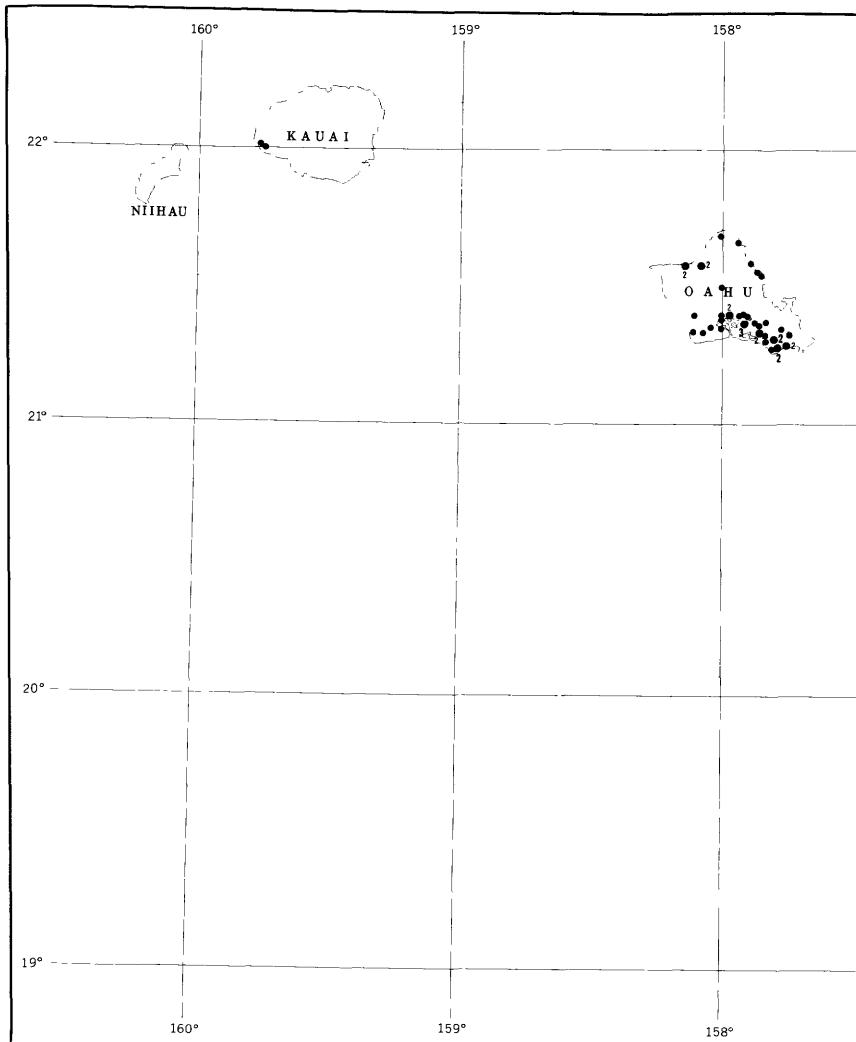
1960

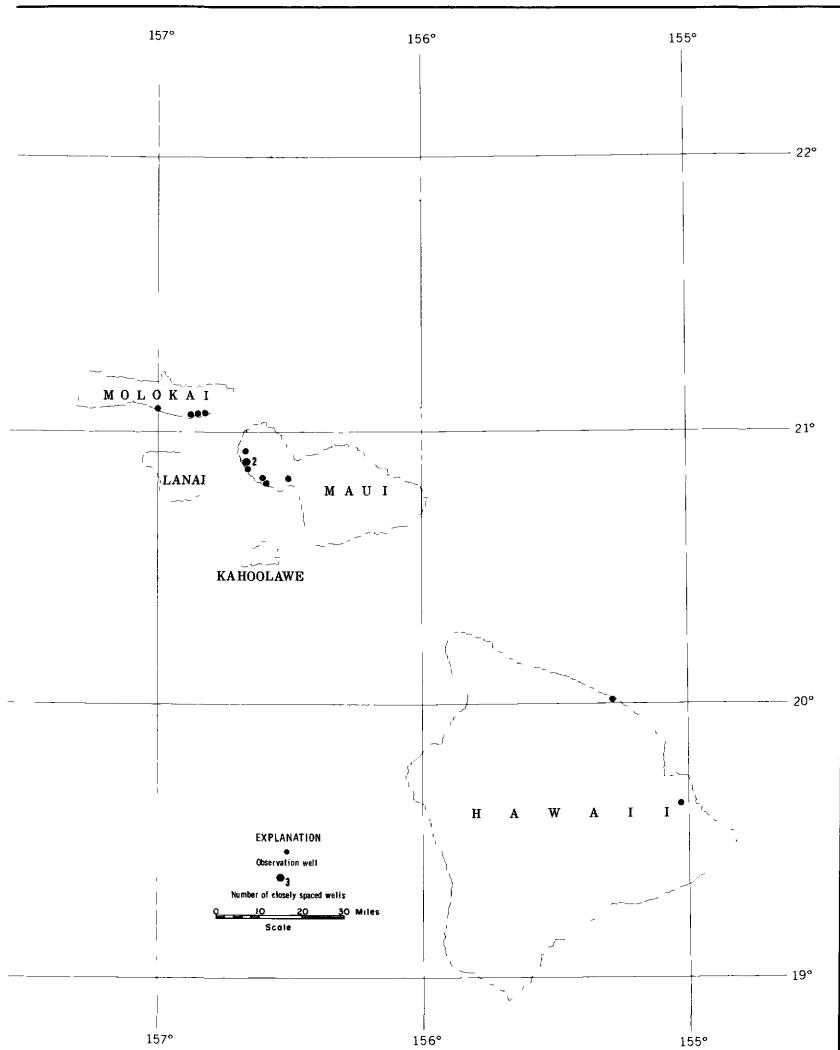
5	5.9	5.6	5.9	5.8	5.7	6.3	6.2	5.9	6.3	6.2	e6.0	6.3
10	5.8	5.5	5.6	6.0	6.0	6.0	6.1	5.9	6.3	6.1	e6.0	6.1
15	5.7	5.6	5.7	6.0	6.1	6.1	5.9	6.0	6.0	6.1	6.0	6.1
20	5.6	5.7	5.8	5.7	6.1	6.3	6.1	6.0	6.0	6.0	6.2	6.2
25	5.7	5.6	5.8	5.8	6.0	6.2	6.2	6.1	6.3	6.1	6.2	6.1
Eom	5.8	5.7	5.8	5.9	6.1	6.0	6.2	6.1	6.1	6.0	6.2	6.1

e Estimated.

Shaft 7. Olaa Sugar Co. Olaa. Lat 19°37'50", long 155°02'00". Dug domestic and irrigation basal water-table well in basalt of Kahuku Volcanic Series, Pleistocene age, size 10 x 10 ft, depth 203 ft; three infiltration tunnels, total length 48 ft. Lsd 220 ft above msl. MP pump room floor, 22.86 ft above msl. Highest water level 25.86 above msl, Mar. 6, 1939; lowest 12.53 above msl, Dec. 5, 1953. Records available: 1936-60. Records furnished by Olaa Sugar Co.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7, 1956	13.86	Oct. 13, 1956	15.50	July 27, 1957	14.11	May 10, 1958	13.78
14	13.94	20	15.68	Aug. 3	14.11	17	13.86
21	13.98	27	15.59	10	14.28	24	13.90
28	13.98	Nov. 3	15.53	17	14.69	31	14.13
Feb. 4	13.98	10	15.61	24	14.73	June 14	14.40
11	13.86	17	15.69	Sept. 7	17.56	21	14.23
18	13.94	24	17.36	14	17.36	28	14.34
25	14.98	Dec. 1	17.42	21	17.38	July 12	14.25
Mar. 3	16.28	8	16.86	28	17.42	19	14.36
10	17.04	15	16.90	Oct. 5	16.86	26	14.32
17	16.54	29	16.61	12	16.65	Aug. 2	14.94
24	16.5	Jan. 5, 1957	16.36	19	16.11	9	15.48
31	16.61	12	16.19	26	16.07	16	15.57
Apr. 7	16.50	19	16.11	Nov. 2	15.94	23	15.57
14	16.59	26	15.86	9	15.69	30	15.65
21	16.66	Feb. 2	15.57	16	15.69	Sept. 6	15.92
28	16.78	9	15.61	23	15.69	13	16.03
May 5	16.61	16	15.69	30	15.44	20	15.98
12	16.36	23	15.53	Dec. 7	15.69	27	15.65
19	17.07	Mar. 2	15.53	14	16.44	Oct. 4	15.65
26	17.03	9	15.32	21	16.44	11	15.65
June 2	16.82	16	15.28	28	16.53	18	15.67
9	16.65	23	15.11	Jan. 4, 1958	16.86	25	15.98
16	16.38	30	14.86	11	16.69	Nov. 1	15.82
23	16.19	Apr. 6	14.85	18	16.57	8	15.63
30	16.11	13	14.69	25	16.36	15	16.56
July 7	16.08	20	14.61	Feb. 1	16.11	22	16.65
14	16.08	27	14.44	8	16.28	29	16.48
21	15.78	May 4	14.77	15	16.36	Dec. 6	15.57
28	15.53	11	14.82	22	15.86	13	15.40
Aug. 4	15.36	18	15.02	Mar. 1	15.36	20	15.48
11	15.19	25	14.86	8	15.28	27	15.57
18	15.61	June 1	15.15	15	15.11	Jan. 3, 1959	15.57
25	15.98	8	15.11	22	14.86	10	15.34
Sept. 1	16.11	15	14.94	29	14.78	17	15.36
8	16.23	22	14.78	Apr. 5	14.53	24	14.73
15	16.08	29	14.61	12	14.36	31	14.9
22	15.86	July 6	14.44	19	14.11	Feb. 7	14.48
29	15.69	13	14.27	26	13.94	14	14.4
Oct. 6	15.78	20	14.36	May 3	13.81	21	14.48





wells in Hawaii, 1956-60.

## Shaft 7--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 28, 1959	14.53	Sept. 5, 1959	13.69	Feb. 20, 1960	17.86	July 30, 1960	14.78
Mar. 7	14.54	12	13.60	27	17.61	Aug. 6	14.86
14	14.98	19	13.60	Mar. 5	17.6	13	14.36
21	15.03	26	13.94	12	17.36	20	14.36
28	14.98	Oct. 3	13.44	19	16.78	27	14.42
Apr. 26	14.58	10	13.44	26	16.36	Sept. 3	14.42
May 2	14.41	17	13.68	Apr. 2	16.03	10	14.08
9	14.53	24	13.52	9	15.85	17	14.29
16	14.61	31	16.36	16	15.69	24	14.52
23	14.51	Nov. 7	17.94	23	15.78	Oct. 1	14.74
30	14.44	14	16.52	30	16.03	8	14.93
June 6	14.48	21	16.20	May 7	16.03	15	14.77
13	14.15	28	16.62	14	16.36	22	14.78
20	14.36	Dec. 5	15.48	21	16.52	29	14.79
27	14.06	12	15.44	28	16.16	Nov. 5	14.69
July 4	13.94	19	15.60	June 4	15.69	12	14.77
11	13.36	26	15.77	11	16.42	19	14.82
18	13.26	31	15.90	18	16.25	26	14.85
25	13.69	Jan. 9, 1960	15.58	25	15.98	Dec. 3	15.11
Aug. 1	13.96	16	15.75	July 2	15.52	10	15.44
8	13.84	23	18.85	9	15.36	17	15.48
15	13.77	30	17.73	16	14.98	24	15.38
22	13.69	Feb. 6	17.38	23	14.82	31	15.11
29	13.61	13	17.94				

## Island of Kauai

35. Kekaha Sugar Co. Near Kekaha, Lat  $22^{\circ}00'10''$ , long  $159^{\circ}44'50''$ . Drilled irrigation artesian basal-water well in basalt, diam 12 in, depth 245 ft, cased to 168. Lsd 7.82 ft above msl. Highest water level 11.32 above msl, Dec. 20, 1937; lowest 7.63 above msl, Apr. 17, 1944. Records available: 1937-60. Records furnished by Kekaha Sugar Co.

Jan. 17, 1956	10.65	July 23, 1957	10.46	Aug. 15, 1958	8.80	Oct. 14, 1959	8.87
Feb. 23	10.60	Aug. 21	10.44	Sept. 26	8.92	Nov. 30	8.89
Mar. 23	10.58	Sept. 17	10.45	Oct. 17	8.88	Dec. 15	8.90
Apr. 20	10.49	Oct. 24	8.78	Nov. 11	10.25	Jan. 28, 1960	8.81
May 25	10.50	25	9.04	Dec. 16	8.69	Feb. 15	8.84
Sept. 24	10.20	Nov. 20	8.77	Jan. 12, 1959	10.32	Mar. 18	9.08
Oct. 30	10.30	Dec. 23	8.41	Feb. 9	10.50	Apr. 27	8.53
Nov. 16	10.40	Jan. 31, 1958	8.54	Mar. 17	8.91	May	8.53
Dec. 13	10.56	Feb. 20	9.70	Apr. 15	8.85	June	8.60
Jan. 16, 1957	10.56	Mar. 24	10.42	May 19	8.87	July	8.39
Feb. 14	10.54	Apr. 21	10.44	June 16	8.85	Aug.	8.29
Mar. 15	10.54	May 12	10.42	July 17	8.77	Sept.	8.34
Apr. 13	10.52	June 25	8.87	Aug. 17	8.83	Oct. 18	9.15
May 13	10.50	July 31	8.84	Sept. 15	8.89	Nov.	8.27
June 18	10.46						

37. Kekaha Sugar Co. Near Kekaha, Lat  $22^{\circ}00'45''$ , long  $159^{\circ}45'20''$ . Drilled irrigation artesian basal-water well in basalt, diam 12 in, depth 262 ft, cased to 188. Lsd 9.98 ft above msl. MP top of flange on 12-in T, 7.48 ft above msl. Highest water level 11.08 above msl, Feb. 15, 1943; lowest 7.93 above msl, June 14, 1947. Records available: 1937-50, 1952-60. Records furnished by Kekaha Sugar Co.

Jan. 17, 1956	10.42	July 23, 1957	10.26	Aug. 15, 1958	8.80	Oct. 14, 1959	8.95
Feb. 23	10.39	Aug. 21	10.24	Sept. 26	8.86	Nov. 30	8.93
Mar. 23	10.34	Sept. 17	10.26	Oct. 17	8.84	Dec. 15	8.94
Apr. 20	10.32	Oct. 24	9.05	Nov. 11	10.21	Jan. 28, 1960	8.86
May 25	10.34	25	8.92	Dec. 16	8.70	Feb. 15	8.85
Sept. 24	9.95	Nov. 20	8.83	Jan. 12, 1959	10.30	Mar. 18	9.49
Oct. 30	10.00	Dec. 23	8.88	Feb. 9	10.35	Apr. 27	9.97
Nov. 16	10.26	Jan. 31, 1958	8.94	Mar. 17	8.87	May	8.89
Dec. 13	10.31	Feb. 20	9.89	Apr. 15	8.85	June	8.93
Jan. 16, 1957	10.31	Mar. 24	10.22	May 19	8.89	July	8.22
Feb. 14	10.30	Apr. 21	10.24	June 16	8.88	Aug.	8.41
Mar. 15	10.28	May 12	10.26	July 17	8.81	Sept.	8.57
Apr. 13	10.28	June 25	8.84	Aug. 17	8.90	Oct. 18	10.30
May 13	10.30	July 31	8.84	Sept. 15	8.98	Nov.	8.63
June 18	10.26						

Island of Maui

T-110. Wailuku Sugar Co. Near Puu Hele. Lat 20°49'20", long 156°31'01". Drilled observation basal water-table well in basalt of Wailuku Volcanic Series, Pliocene (?) age, diam  $\frac{3}{4}$  in, depth 325 ft, cased to 313, perforated 309-313. Lsd 312.67 ft above msl. MP top of casing, 312.67 ft above msl. Highest water level 8.9 above msl, Sept. 15, 1950; lowest 3.6 above msl, Oct. 19, 1955. Records available: 1939-57. Well abandoned; measurement discontinued. Records furnished by owner.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17, 1956	8.3	July 19, 1956	5.9	Nov. 15, 1956	5.8	Mar. 19, 1957	4.6
Apr. 17	5.8	Aug. 20	5.4	Dec. 14	6.8	Apr. 16	5.9
May 21	5.8	Sept. 24	5.9	Jan. 16, 1957	4.1	May 20	3.9
June 24	5.8	Oct. 23	4.8	Feb. 22	4.8	July 17	4.6

Shaft 3. Pioneer Mill Co., Ltd. Kaanapali. Lat 20°56'30", long 156°41'30". Dug irrigation basal water-table well in basalt of Wailuku Volcanic Series, Pliocene (?) age, depth 25 ft; two infiltration tunnels, total length of tunnels 1,561 ft, 11 supplemental drilled wells at bottom of shaft. Lsd 27 ft above msl. Highest water level 2.98 above msl, Dec. 31, 1948; lowest 1.43 above msl, Dec. 31, 1949. Records available: 1937-58, 1960. No measurement made in 1959. Records furnished by Pioneer Mill Co., Ltd. Dec. 31, 1956, 1.9; Dec. 3, 1957, 2.0; Dec. 3, 1.4 (well being pumped); Dec. 5, 1958, 1.5 (well being pumped); Dec. 31, 2.5; Dec. 30, 1960, 1.9 (well being pumped); Dec. 31, 2.1.

Shaft 5. Pioneer Mill Co., Ltd. Kahoma. Lat 20°53'50", long 156°40'00". Dug irrigation basal water-table well in basalt of Wailuku Volcanic Series, Pliocene (?) age, depth 323 ft; two infiltration tunnels, total length of tunnels 3,801 ft. Lsd 322 ft above msl. Highest water level 3.78 above msl, Dec. 31, 1948; lowest 1.93 above msl, Dec. 31, 1945. Records available: 1937-58, 1960. No measurement made in 1959. Records furnished by Pioneer Mill Co., Ltd. Dec. 31, 1956, 1.9; Dec. 3, 1957, 2.0; Dec. 3, 1.4 (well being pumped); Dec. 5, 1958, 1.5 (well being pumped); Dec. 31, 2.5; Dec. 30, 1960, 1.9 (well being pumped); Dec. 31, 2.2.

Shaft 7. Pioneer Mill Co., Ltd. Plantation mill in Lahaina. Lat 20°53'00", long 156°40'40". Dug irrigation basal water-table well in basalt of Wailuku Volcanic Series, Pliocene (?) age, depth 39 ft; one infiltration tunnel, length 768 ft, 3 supplemental drilled wells at bottom of shaft. Lsd 34 ft above msl. Highest water level 3.63 above msl, Dec. 31, 1940; lowest 2.6 above msl, Dec. 31, 1953. Records available: 1937-58, 1960. No measurement made in 1959. Records furnished by Pioneer Mill Co., Ltd. Dec. 31, 1956, 3.0; Dec. 31, 1957, 3.1; Dec. 31, 0.5 (well being pumped); Dec. 31, 1958, 1.50 (well being pumped); Dec. 31, 3.43; Dec. 23, 1960, 0.6 (well being pumped); Dec. 31, 3.0.

Shaft 9. Pioneer Mill Co., Ltd. Lahaina. Lat 20°52'25", long 156°40'15". Dug irrigation basal water-table well in basalt of Wailuku Volcanic Series, Pliocene (?) age, depth 31 ft; one infiltration tunnel, length 1,094 ft, 10 supplemental drilled wells at bottom of shaft. Lsd 30 ft above msl. Highest water level 2.83 above msl, Dec. 31, 1948; lowest 1.5 above msl, Dec. 31, 1953. Records available: 1937-58, 1960. No measurement made in 1959. Records furnished by Pioneer Mill Co., Ltd. Dec. 31, 1956, 1.7; Dec. 27, 1957, 2.1; Dec. 27, 1.2 (well being pumped); Dec. 24, 1958, 1.20 (well being pumped); Dec. 31, 2.52; Dec. 27, 1960, 0.8 (well being pumped); Dec. 31, 1.8.

Shaft 10. Pioneer Mill Co., Ltd. Olowalu. Lat 20°49'30", long 156°37'15". Dug irrigation basal water-table well in basalt of Wailuku Volcanic Series, Pliocene (?) age, vertical depth of 30-degree inclined shaft 300 ft; one infiltration tunnel, length 239 ft. Lsd 165 ft above msl. Highest water level 4.3 above msl, Dec. 31, 1950; lowest 3.1 above msl, Dec. 31, 1953. Records available: 1937-58, 1960. No measurement made in 1959. Records furnished by Pioneer Mill Co., Ltd. Dec. 31, 1956, 3.2; Nov. 20, 1957, 3.8; Nov. 20, 1.5 (well being pumped); Dec. 29, 1958, 3.14 (well being pumped); Dec. 31, 3.80; Dec. 27, 1960, 2.5 (well being pumped); Dec. 31, 3.3.

Shaft 12. Pioneer Mill Co., Ltd. Ukumehame. Lat 20°48'45", long 156°35'50". Dug irrigation basal water-table well in basalt of Wailuku Volcanic Series, Pliocene (?) age, vertical depth of 30-degree inclined shaft 143 ft; one infiltration tunnel, length 428 ft. Lsd 79 ft above msl. Highest water level 6.7 above msl, Dec. 31, 1950; lowest 4.27 above msl, Dec. 31, 1943. Records available: 1937-58, 1960. No measurement made in 1959. Records furnished by Pioneer Mill Co., Ltd. Dec. 31, 1956, 5.6; Nov. 20, 1957, 5.8; Nov. 20, 3.4 (well being pumped); Dec. 23, 1958, 4.98 (well being pumped); Dec. 31, 5.61; Dec. 12, 1960, 4.0 (well being pumped); Dec. 31, 5.0.

Island of Molokai

Shaft 4. Molokai Ranch Co. Kawela Gulch. Lat  $21^{\circ}04'20''$ , long  $157^{\circ}57'00''$ . Dug public-supply basal water-table well in basalt of East Molokai Volcanic Series, Pliocene (?) age, size  $4 \times 4$  ft, depth 38 ft, lined with concrete; two infiltration tunnels, total length 229 ft. Lsd 37.64 ft above msl. MP top of steel I-beam under pump, 37.07 ft above msl. Highest water level 2.57 above msl, Dec. 19, 1947; lowest 1.47 above msl, June 24, 1955. Records available: 1947-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3, 1956	2.04	Feb. 24, 1956	2.00	Jan. 20, 1957	2.09	Jan. 29, 1959	2.14
13	1.56	Mar. 6	1.68	May 20	1.80	Mar. 25	2.12
14	2.00	7	1.83	July 8	1.88	July 30	a2.08
16	2.00	15	1.80	Nov. 5	1.68	Jan. 27, 1960	a1.99
23	1.87	May 21	1.85	Feb. 24, 1958	1.83	May 9	1.84
26	1.93	July 22	1.75	Apr. 28	1.72	Aug. 16	1.74
31	2.00	Sept. 11	1.87	June 23	1.87	Oct. 4	1.99
Feb. 10	1.96	Nov. 21	2.01	Aug. 11	2.20	Nov. 30	2.14

a Well being pumped.

Shaft 6. County of Maui. Ualapue. Lat  $21^{\circ}04'00''$ , long  $156^{\circ}50'00''$ . Dug public-supply basal water-table well in basalt of East Molokai Volcanic Series, Pliocene (?) age, size  $4 \times 6$  ft, depth 42 ft, lined with concrete; two infiltration tunnels, total length 214 ft. Lsd 43.71 ft above msl. MP top of steel plate supporting gage, 44.42 ft above msl. Highest water level 6.05 above msl, Jan. 19, 1950; lowest 4.57 above msl, June 21, 1955. Records available: 1938-60.

Jan. 31, 1956	5.50	Jan. 25, 1957	5.33	Apr. 30, 1958	4.84	Mar. 14, 1960	5.17
Mar. 7	5.29	Mar. 23	5.17	June 23	4.99	May 2	4.95
May 21	5.14	May 20	5.05	Aug. 11	5.63	6	4.88
July 22	5.16	29	4.95	Jan. 29, 1959	5.55	9	4.88
Aug. 17	5.14	July 8	4.87	Mar. 25	5.36	13	4.88
Sept. 11	5.20	Sept. 10	5.14	May 27	5.29	June 3	4.81
Nov. 21	5.29	Nov. 5	4.87	July 30	5.70	Aug. 16	4.68
Dec. 26	5.30	Jan. 6, 1958	5.08	Jan. 27, 1960	5.14	Oct. 4	5.01
Jan. 20, 1957	5.25	Feb. 24	4.92				

11. Molokai Ranch, Kaunakakai Gulch. Lat  $21^{\circ}06'$ , long  $157^{\circ}01'$ . Drilled unused basal water-table well in basalt of East Molokai Volcanic Series, Pliocene (?) age, diam 12 in, depth 59 ft, cased to 20. Lsd 51 ft above msl. MP top of surface casing, 51.95 ft above msl. Highest water level 2.75 above msl, Nov. 21, 1956; lowest 1.87 above msl, Aug. 16, 1960. Records available: 1954-60.

Jan. 23, 1956	2.31	Mar. 24, 1957	2.42	May 1, 1958	2.05	Dec. 3, 1959	2.40
Mar. 7	2.29	May 14	2.26	June 23	2.15	Jan. 28, 1960	2.25
May 11	2.23	July 9	2.40	Aug. 11	2.20	Mar. 14	2.30
July 11	2.20	Aug. 20	2.40	Jan. 26, 1959	2.50	May 9	2.30
22	2.20	Sept. 13	2.45	Mar. 23	2.35	Aug. 16	1.87
Sept. 21	2.35	Nov. 5	2.05	May 27	2.30	Oct. 4	2.51
Nov. 21	2.75	Jan. 7, 1958	2.05	July 27	2.40	Nov. 26	2.54
Jan. 21, 1957	2.32	Feb. 24	2.08	Sept. 30	2.55		

42. County of Maui. Kamalo. Lat  $21^{\circ}03'30''$ , long  $156^{\circ}52'25''$ . Dug unused (previously reported public-supply) basal water-table well in basalt of East Molokai Volcanic Series, Pliocene (?) age, size  $4 \times 4$  ft, depth 40 ft, lined with boulders. Lsd 43.23 ft above msl. MP south edge of well cover opening, 42.67 ft above msl. Highest water level 5.40 above msl, Dec. 5, 1950; lowest 4.10 above msl, May 19, 1951. Records available: 1938-60.

Mar. 7, 1956	4.76	May 20, 1957	4.58	June 23, 1958	4.54	Jan. 27, 1960	4.79
May 21	4.59	July 8	4.57	Aug. 11	5.17	Mar. 14	4.19
July 22	4.60	Sept. 10	4.73	Jan. 28, 1959	5.04	May 9	4.54
Sept. 11	4.59	Nov. 5	4.27	Mar. 25	4.79	Aug. 16	4.31
Nov. 21	4.68	Jan. 6, 1958	4.50	May 27	4.75	Oct. 4	4.78
Jan. 20, 1957	4.77	Feb. 24	4.38	July 30	4.80	Nov. 30	4.89
Mar. 23	4.72	Apr. 28	4.40				

Island of Oahu

1A. B. P. Bishop Estate. Waialae Golf Links, Honolulu. Lat  $21^{\circ}16'45''$ , long  $157^{\circ}46'45''$ . Drilled unused artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 4 in, depth 131 ft, cased to 100. Lsd 18 ft above msl. MP top of casing, 13.84 ft above msl. Highest water level 9.10 above msl, Feb. 4, 1940; lowest 7.55 above msl, June 14, 1946. Records available: 1933-44, 1947-60 (previously reported 1933-55). Records furnished by Honolulu Board of Water Supply. Jan. 5, 1959, 8.77; Jan. 10, 8.80; Jan. 15, 8.84; Jan. 20, 8.81; Aug. 26, 8.76; July 21, 1960, 7.76.

1A--Continued.

Mean water level for the day, above msl, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	8.38	8.41	8.31	8.22	8.18	8.12	8.05	8.09	8.06	8.15	8.20	8.38
10	8.36	8.32	8.26	8.21	8.17	8.15	....	8.09	....	8.15	8.21	....
15	8.41	8.38	8.22	8.21	8.21	8.12	8.06	8.03	....	8.18	8.22	8.37
20	8.39	8.38	8.18	8.15	8.16	8.09	8.02	8.03	....	8.17	8.28	8.36
25	8.42	8.38	8.25	8.19	8.13	....	....	....	....	8.18	8.31	8.34
Eom	8.41	8.37	8.25	8.20	8.14	....	8.02	8.05	8.14	8.18	8.38	8.33
1957												
5	8.32	8.57	8.46	8.24	8.19	8.12	8.10	8.14	8.18	8.15	8.04	8.10
10	8.28	8.53	8.44	8.23	8.12	8.11	8.10	8.18	8.16	8.09	8.07	8.08
15	8.33	8.54	8.36	8.27	8.17	8.10	8.11	8.15	8.17	8.09	8.08	8.10
20	8.43	8.5	8.46	8.20	8.17	8.09	8.13	8.14	8.17	8.11	8.10	e8.11
25	8.61	8.51	8.31	8.20	8.12	8.07	8.12	8.18	8.17	8.08	8.12	e8.09
Eom	8.59	8.50	8.30	8.22	8.13	e8.08	8.15	8.18	8.16	8.03	8.11	e8.07
1958												
5	8.07	8.03	8.15	8.20	8.03	8.02	8.12	....	....	....	....	e8.57
10	....	8.05	8.41	8.15	8.08	8.04	8.09	....	....	....	....	8.70
15	8.05	8.08	8.37	8.11	8.08	8.04	e8.08	....	....	....	....	8.74
20	8.06	8.13	8.31	8.13	8.07	8.02	....	....	e8.48	....	....	8.70
25	8.00	8.09	8.28	8.07	8.05	8.0	....	....	....	....	....	8.72
Eom	7.99	8.14	8.21	8.06	8.05	8.07	....	....	....	....	....	e8.77

e Estimated.

1B. B. P. Bishop Estate. Waialae Golf Links, Honolulu. Lat 21°16'45", long 157°46'50". Drilled domestic and irrigation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 8 in, depth 120 ft, cased to 43. Lsd 18.22 ft above msl. MP top of blind flange on well, 8.22 ft above msl. Highest water level 8.94 above msl, Jan. 27, 1943; lowest 6.45 above msl, Oct. 20, 1933. Records available: 1919, 1929-34, 1936-60.

Date	Water level						
Jan. 26, 1956	8.41	Apr. 24, 1957	a8.06	July 28, 1958	8.17	Oct. 26, 1959	8.49
Feb. 28	8.33	May 24	a7.87	Aug. 28	a8.17	Nov. 19	8.43
Mar. 28	8.23	June 27	8.07	Sept. 26	8.36	Dec. 24	8.39
Apr. 25	8.18	July 24	8.14	Oct. 28	a8.41	Jan. 26, 1960	8.24
May 24	8.10	Aug. 28	8.28	Nov. 26	a8.42	Feb. 24	8.26
June 28	8.09	Sept. 26	8.21	Dec. 29	8.73	Mar. 25	8.07
July 26	8.02	Oct. 24	8.05	Jan. 26, 1959	a8.59	Apr. 28	8.02
Aug. 29	8.01	Nov. 26	8.14	Feb. 26	8.73	May 24	8.04
Sept. 27	a8.04	Dec. 24	8.09	Mar. 27	8.63	June 24	7.94
Oct. 25	8.22	Jan. 28, 1958	8.02	Apr. 23	a8.42	July 21	a7.69
Nov. 21	a8.26	Feb. 25	8.06	May 28	8.62	Aug. 24	7.87
Dec. 20	8.44	Mar. 28	8.15	June 22	8.70	Sept. 21	7.85
Jan. 24, 1957	8.52	Apr. 24	8.06	July 24	a8.45	Oct. 25	a7.81
Feb. 20	8.58	May 28	7.97	Aug. 27	8.77	Dec. 29	8.04
Mar. 21	8.32	June 25	8.06	Sept. 23	8.68		

a Well being pumped.

2. B. P. Bishop Estate. Kalei Rd., Honolulu. Lat 21°17'50", long 157°48'55". Drilled unused artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 8 in, depth unknown, cased. Lsd 37 ft above msl. MP top of casing, 37.38 ft above msl. Highest water level 31.55 above msl, Jan. 28, 1940; lowest 19.66 above msl, Sept. 14, 1944. Records available: 1916, 1919, 1923, 1926, 1929-60. Records furnished by Honolulu Board of Water Supply.

Mean water level for the day, above msl, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	....	....	....	29.06	28.49	28.14	27.43	26.37	25.64	25.45	26.57	....
10	....	....	....	28.89	28.29	28.07	27.24	26.06	25.65	25.57	26.50	27.90
15	....	29.79	....	28.76	28.30	28.11	27.30	25.92	25.57	25.83	26.76	27.95
20	....	....	....	28.87	28.28	27.81	26.95	26.00	25.71	26.10	27.13	28.05
25	29.66	....	....	28.96	28.06	27.81	26.75	25.85	25.57	26.31	27.37	28.18
Eom	....	29.71	29.15	28.79	28.22	27.72	26.50	25.77	25.41	26.50	27.52	28.10
1957												

5	27.90	28.90	28.88	27.75	28.43	27.45	26.90	26.38	26.58	26.42	26.01	26.41
10	27.84	29.01	28.67	27.91	28.10	27.27	26.72	26.51	26.41	25.98	26.26	26.46
15	28.01	29.08	28.53	28.03	28.26	27.00	26.58	26.33	26.51	25.96	26.30	26.48
20	28.28	29.11	28.38	28.17	28.17	27.00	26.26	26.32	26.54	26.05	26.37	26.54
25	28.61	28.99	28.25	28.26	27.87	26.85	26.25	26.32	26.55	25.97	26.39	26.54
Eom	28.72	28.95	28.12	e28.37	27.67	26.88	26.35	26.54	26.66	25.95	26.42	26.57

e Estimated.

2--Continued.

Day	1958											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	26.65	27.09	e27.43	26.22	25.42	25.72	e25.30	25.34	25.51	25.48	26.46	27.05
10	26.75	27.12	27.62	26.02	e25.30	25.76	25.30	e25.40	25.33	25.60	26.54	27.08
15	26.83	27.20	27.24	25.87	e25.30	25.58	25.32	25.66	25.43	25.78	26.58	27.10
20	26.93	27.23	26.88	25.76	e25.20	25.37	25.41	25.41	25.34	e26.00	26.77	27.07
25	26.93	27.20	26.62	25.68	e25.50	25.29	25.39	25.44	25.25	26.18	e26.80	27.14
Eom	27.01	27.30	26.36	25.52	25.59	25.31	25.20	25.64	25.27	26.36	e26.90	27.29
1959												
5	27.37	27.76	27.76	27.44	e26.70	.....	.....	.....	.....	.....	.....	24.80
10	27.44	27.82	27.71	27.39	26.52	.....	.....	.....	.....	.....	.....	25.04
15	27.53	27.86	27.69	27.29	26.06	.....	.....	.....	.....	.....	.....	25.25
20	27.61	27.83	27.50	27.20	25.99	.....	.....	.....	24.43	.....	.....	25.49
25	27.63	27.88	27.42	26.94	26.10	.....	.....	.....	.....	.....	24.57	25.72
Eom	27.73	27.86	27.35	26.90	26.16	.....	.....	.....	.....	.....	24.83	25.49
1960												
5	25.60	25.51	25.63	25.41	24.73	24.64	23.54	21.49	21.30	21.94	22.74	23.63
10	25.69	25.39	25.84	25.48	24.65	24.15	23.23	21.30	21.52	21.94	22.91	23.82
15	25.68	25.55	25.91	25.45	24.86	23.90	22.90	21.13	21.40	22.23	23.18	24.23
20	25.58	25.60	25.80	25.45	24.88	23.77	22.60	20.91	21.46	22.12	23.19	24.46
25	25.30	25.50	25.80	25.42	24.98	23.49	22.45	20.75	21.83	22.60	23.34	24.50
Eom	25.58	25.47	25.56	24.97	24.88	23.52	21.85	21.16	22.03	22.57	23.35	24.75

e Estimated.

9. J. J. Gouveia. Kapahulu Ave. and Olu St., Honolulu. Lat 21°17'10", long 157°49'00". Drilled industrial artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 6 in, depth 270 ft, cased to 256. Lsd 16.08 ft above msl. MP top of concrete pump-base, 12.97 ft above msl. Highest water level 30.92 above msl, Feb. 16, 1940; lowest 18.40 above msl, Aug. 17, 1926. Records available: 1921, 1923-60.

Date	Water level						
Jan. 25, 1956	29.57	Feb. 20, 1957	29.18	Mar. 28, 1958	26.37	Apr. 23, 1959	25.93
Feb. 28	29.67	Mar. 21	28.37	Apr. 24	25.63	May 28	24.86
Mar. 28	29.12	Apr. 24	28.12	May 28	25.25	June 22	24.13
Apr. 27	28.89	May 24	27.97	June 25	25.07	July 30	22.58
May 24	28.05	June 27	26.71	July 28	25.27	Aug. 27	23.40
June 28	27.67	July 30	26.37	Aug. 28	25.43	Sept. 23	23.28
July 26	26.67	Aug. 28	26.60	Sept. 26	25.01	Oct. 26	23.46
Aug. 29	25.53	Sept. 26	26.57	Oct. 28	26.12	Nov. 19	23.20
Sept. 27	25.32	Oct. 24	25.97	Nov. 26	26.73	Dec. 24	21.78
Oct. 26	26.43	Nov. 26	26.27	Dec. 29	27.13	Aug. 4, 1960	21.06
Nov. 21	27.18	Dec. 24	26.27	Jan. 26, 1959	27.53	24	21.26
Dec. 20	27.99	Jan. 28, 1958	26.87	Feb. 26	26.62	Dec. 29	24.60
Jan. 24, 1957	28.57	Feb. 25	27.20	Mar. 27	26.13		

36A. Honolulu Board of Water Supply. Wilder Ave. and Clement St., Honolulu. Lat 21°18'10", long 157°49'45". Drilled unused artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 in, depth 395 ft. Lsd 43 ft above msl. MP top of casing, 35.85 ft above msl. Highest water level 33.35 above msl, Mar. 11, 1938; lowest 22.41 above msl, Oct. 13, 1945. Records available: 1924, 1929-32, 1934, 1938-58. Measurement suspended. Records furnished by Honolulu Board of Water Supply.

Mean water level for the day, above msl, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	30.71	31.38	e31.8	31.30	30.55	30.40	29.39	28.86	28.70	28.66	29.37	30.23
10	30.84	31.42	.....	31.18	30.46	30.37	29.24	28.70	28.69	28.82	29.40	30.36
15	30.93	31.58	31.68	31.05	30.53	30.35	29.15	28.66	28.66	28.89	29.44	30.50
20	31.05	31.67	31.52	30.93	30.39	30.19	29.10	28.68	28.66	28.99	29.64	30.62
25	31.13	31.75	31.52	30.86	30.28	30.04	29.06	28.62	28.67	29.12	29.84	.....
Eom	31.26	31.80	31.46	30.79	30.38	29.66	28.87	28.62	28.68	29.27	30.14	30.72
1957												
5	30.79	31.56	31.71	30.90	30.41	29.40	28.42	e27.51	27.42	e27.14	26.91	28.12
10	30.83	31.72	31.53	30.79	30.16	29.18	28.20	27.42	27.37	27.05	27.10	28.44
15	.....	31.80	31.35	30.71	30.11	29.00	28.15	27.32	27.30	26.97	27.11	28.76
20	31.00	31.93	31.34	30.57	30.00	28.85	27.86	27.28	27.24	26.94	27.19	29.01
25	31.23	31.90	e31.15	30.50	29.78	28.68	27.70	27.34	27.14	26.86	27.48	e29.20
Eom	31.43	31.77	30.95	30.50	29.63	28.52	27.58	27.30	27.19	26.87	27.92	29.23

e Estimated.

36A--Continued.

1958												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	29.23	28.89	29.08	29.54	29.09	28.50	27.72	.....	.....	.....	.....	.....
10	29.18	28.85	29.39	29.19	28.88	28.22	.....	.....	.....	.....	.....	.....
15	e29.10	28.87	29.53	29.30	28.70	28.06	.....	.....	.....	.....	.....	.....
20	....	28.79	29.71	29.24	28.66	27.88	.....	.....	.....	.....	.....	.....
25	28.97	28.81	29.59	29.13	28.56	27.99	.....	.....	.....	.....	.....	.....
Eom	28.88	28.86	29.60	29.04	28.65	27.80	.....	.....	.....	.....	.....	.....

e Estimated.

81. R. Sakimoto. Young and Victoria Sts., Honolulu. Lat 21°18'20", long 157°50'55". Drilled domestic artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 8 in, depth 505 ft, cased to 475. Lsd 18.04 ft above msl. MP top of vertical flange on main valve, 16.43 ft above msl. Highest water level 33.04 above msl, Feb. 28, 1938; lowest 21.99 above msl, Aug. 28, 1946. Records available: 1916, 1923-24, 1926, 1929-60.

Date	Water level						
Jan. 25, 1956	31.03	Apr. 24, 1957	30.08	July 28, 1958	27.03	Oct. 26, 1959	25.01
Feb. 28	31.53	May 24	29.45	Aug. 28	26.88	Nov. 19	25.63
Mar. 28	31.28	June 27	28.21	Sept. 26	27.21	Dec. 24	25.93
Apr. 27	30.53	July 30	27.14	Oct. 28	27.92	Jan. 26, 1960	26.08
May 24	29.86	Aug. 28	27.06	Nov. 26	28.58	Feb. 24	26.03
June 28	29.33	Sept. 26	26.83	Dec. 29	29.03	Mar. 25	25.69
July 26	28.63	Oct. 24	26.53	Jan. 26, 1959	29.43	Apr. 28	25.13
Aug. 29	28.24	Nov. 26	27.23	Feb. 26	29.83	May 24	25.13
Sept. 27	28.18	Dec. 24	28.84	Mar. 27	29.18	June 24	24.53
Oct. 26	28.89	Jan. 28, 1958	28.43	Apr. 23	28.74	July 21	24.03
Nov. 21	29.37	Feb. 25	28.63	May 28	27.67	Aug. 24	23.23
Dec. 20	30.13	Mar. 28	29.41	June 22	26.73	Sept. 22	23.63
Jan. 24, 1957	30.83	Apr. 24	28.93	July 24	25.68	Oct. 25	24.31
Feb. 20	31.65	May 28	28.30	Aug. 27	25.35	Dec. 2	24.85
Mar. 21	30.83	June 25	27.63	Sept. 23	25.33	29	26.25

83. Honolulu Board of Water Supply. Formerly City and County of Honolulu. Beretania and Kapiolani Sts., Honolulu. Lat 21°18'20", long 157°51'05". Drilled unused artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 8 to 6 in, depth 509 ft, cased to 460. Lsd 27 ft above msl. MP top of 12-in standpipe, 32.60 ft above msl. Highest water level 33.29 above msl, Mar. 10, 1938; lowest 22.07 above msl, Aug. 10, 1946. Records available: 1923, 1925-48, 1952-54, 1957-60. No measurement made in 1955 or 1956. Records furnished by Honolulu Board of Water Supply.

## Mean water level for the day, above msl, from recorder graph, 1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	30.69	31.47	31.60	30.80	30.30	29.30	28.30	27.50	27.30	27.00	26.84	28.13
10	30.73	31.62	31.44	30.69	30.04	29.10	28.15	27.33	27.25	26.98	27.08	28.42
15	30.81	31.70	31.25	30.63	30.00	28.90	28.09	27.20	27.25	26.91	27.06	28.74
20	30.90	31.81	31.25	30.44	29.90	28.77	27.75	27.17	27.16	26.89	27.15	28.95
25	31.13	31.80	31.10	30.40	29.70	28.62	27.58	27.30	27.02	26.81	27.48	29.19
Eom	31.36	31.65	30.86	30.36	29.47	28.43	27.49	27.20	27.10	26.81	27.79	29.17

## 1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	29.19	28.84	29.06	e29.49	28.94	28.54	27.72	e27.00	27.28	27.57	28.32	28.88
10	29.13	28.82	29.35	29.29	28.80	28.31	27.74	27.26	27.30	27.48	28.45	28.86
15	29.02	28.80	29.43	e29.22	28.66	28.03	27.57	27.18	e27.30	27.57	28.58	29.04
20	29.07	28.72	29.63	29.18	e28.60	27.89	27.62	e27.10	27.51	27.85	28.76	29.11
25	28.92	28.72	29.50	29.09	28.49	27.83	27.35	e27.00	27.47	28.00	28.76	29.14
Eom	28.83	28.77	29.60	29.05	28.59	27.83	27.07	27.20	27.47	28.17	28.80	29.27

## 1959

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	29.43	29.76	29.95	29.41	28.83	27.79	26.65	25.56	25.69	25.49	25.64	26.07
10	29.43	e29.80	29.90	29.32	28.74	27.54	26.39	25.74	25.73	25.46	25.87	26.11
15	29.60	e29.90	29.80	29.30	28.47	27.42	26.26	25.74	25.69	25.51	26.14	26.16
20	e29.60	29.90	29.66	29.20	28.27	27.16	25.97	25.64	25.62	25.44	26.09	26.22
25	e29.60	e30.00	29.42	29.07	28.10	26.92	25.65	25.70	25.49	25.47	26.17	26.34
Eom	29.74	30.10	e29.30	28.94	27.96	26.77	25.59	25.76	25.52	25.56	26.18	26.28

## 1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	26.30	26.08	26.06	25.80	25.41	25.37	24.90	23.95	23.78	24.13	24.61	25.07
10	26.30	25.92	26.18	25.70	25.34	25.19	24.73	23.80	23.82	24.16	24.68	25.20
15	26.37	25.94	26.18	25.74	25.40	25.12	24.61	23.73	23.94	24.24	24.79	25.46
20	26.44	26.57	26.09	25.60	25.46	24.98	24.40	23.64	23.98	24.28	24.86	25.58
25	26.34	25.95	25.97	25.69	25.48	24.84	24.30	23.57	24.01	24.40	24.96	25.74
Eom	26.29	25.91	25.85	25.48	25.49	24.85	24.05	23.73	24.12	24.56	24.96	25.90

e Estimated.

119. Honolulu Gas Co. Honolulu Gas Works, Honolulu. Lat  $21^{\circ}19'05''$ , long  $157^{\circ}52'25''$ . Drilled industrial artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 8 in, depth 682 ft, cased to 613. Lsd 4.22 ft above msl. MP top of concrete floor near pumps, 5.14 ft above msl. Highest water level 32.55 above msl, Mar. 16, 1933; lowest 19.96 above msl, July 28, 1945. Records available: 1923-60.

Date	Water level						
Jan. 25, 1956	27.34	Apr. 24, 1957	27.29	July 28, 1958	23.44	Oct. 26, 1959	22.44
Feb. 28	28.74	May 24	25.46	Aug. 28	23.69	Nov. 19	22.74
Mar. 28	27.99	June 27	24.52	Sept. 26	24.42	Dec. 24	22.74
Apr. 27	26.94	July 30	24.15	Oct. 28	25.73	Jan. 26, 1960	22.79
May 24	26.97	Aug. 28	23.56	Nov. 26	25.61	Feb. 24	22.64
June 28	26.24	Sept. 26	23.94	Dec. 29	25.64	Mar. 25	22.50
July 26	24.84	Oct. 24	25.34	Jan. 26, 1959	26.44	Apr. 28	22.24
Aug. 29	24.26	Nov. 26	24.14	Feb. 26	26.26	May 24	22.14
Sept. 27	25.04	Dec. 24	25.44	Mar. 27	25.86	June 24	21.74
Oct. 26	25.88	Jan. 28, 1958	25.04	Apr. 23	24.44	July 21	20.74
Nov. 21	26.14	Feb. 25	25.44	May 28	23.14	Aug. 24	20.24
Dec. 20	27.34	Mar. 28	25.02	June 22	23.04	Sept. 22	20.72
Jan. 24, 1957	27.04	Apr. 24	26.07	July 24	22.20	Oct. 25	21.26
Feb. 20	28.16	May 28	25.38	Aug. 27	22.04	Dec. 2	22.56
Mar. 21	27.54	June 25	24.24	Sept. 23	21.99	29	23.06

132. B. P. Bishop Estate. Old Kamehameha School, Honolulu. Lat  $21^{\circ}20'05''$ , long  $157^{\circ}52'25''$ . Drilled unused artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 to 10 in, depth 346 ft, cased to 265. Lsd 43 ft above msl. MP top of casing, 37.31 ft above msl. Highest water level 32.60 above msl (previously reported 32.70 above msl), Mar. 7, 1938; lowest 21.57 above msl, July 2, 1946. Records available: 1924, 1926, 1928-58. Measurement discontinued. Records furnished by Honolulu Board of Water Supply.

Mean water level for the day, above msl, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	28.76	29.45	29.75	29.05	28.53	28.30	27.22	26.82	26.82	26.61	27.49	28.13
10	....	29.39	29.56	....	28.36	28.29	27.10	26.60	26.78	26.81	27.53	28.45
15	....	29.55	29.35	....	28.49	28.04	27.07	26.70	26.67	26.95	27.48	28.66
20	28.97	29.57	29.25	28.75	28.47	27.90	26.88	26.85	26.62	27.10	27.70	28.73
25	29.20	29.58	29.30	28.78	28.25	27.87	26.84	26.72	26.60	27.27	27.98	28.90
Eom	29.30	29.71	29.13	28.73	28.35	27.40	26.79	26.65	26.61	27.41	28.13	28.89
1957												
5	28.73	29.50	29.45	28.52	e28.40	27.30	26.38	25.55	e25.55	25.23	25.13	26.18
10	28.87	29.66	29.40	28.60	28.00	27.28	26.15	25.32	25.51	25.10	25.37	26.46
15	29.02	29.60	29.10	28.63	28.07	26.90	26.10	25.22	25.49	25.08	25.32	26.73
20	29.04	29.69	29.23	28.42	28.04	26.72	e25.80	25.23	25.30	25.21	25.44	26.82
25	29.17	29.69	29.03	28.39	27.73	26.60	25.56	25.40	25.17	25.00	25.72	27.11
Eom	29.30	29.48	28.88	....	27.58	26.60	25.45	25.38	25.35	25.12	26.03	27.29
1958												
5	27.32	26.71	27.11	27.66	27.39	26.72	25.64	24.97	25.39	25.81	26.66	....
10	27.06	26.79	27.34	27.43	27.36	26.49	25.52	25.30	25.52	25.63	26.8	....
15	26.95	26.81	27.37	27.57	27.35	26.36	25.46	25.10	25.64	25.82	....	....
20	26.97	26.78	27.41	27.63	27.27	26.01	25.57	25.09	25.63	25.95	....	....
25	26.66	26.78	27.72	27.32	27.17	25.90	25.13	25.27	25.70	26.1	....	....
Eom	26.65	26.87	27.70	27.30	26.98	25.89	24.89	25.31	25.66	26.34	....	....

e Estimated.

153. Sam Damon Estate. Moanalua Gardens, Honolulu. Lat  $21^{\circ}21'05''$ , long  $157^{\circ}53'40''$ . Drilled domestic and irrigation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 10 in, depth 289 ft, cased to 79. Lsd 20.38 ft above msl. MP top of flange on 10-in T. 20.49 ft above msl. Highest water level 31.88 above msl, April 1917; lowest 19.39 above msl, Sept. 26, 1945. Records available: 1910-60.

Date	Water level						
Jan. 25, 1956	25.93	Jan. 24, 1957	25.97	Jan. 28, 1958	23.77	Jan. 26, 1959	24.93
Feb. 28	26.43	Feb. 19	26.59	Feb. 25	24.20	Feb. 26	25.08
Mar. 28	25.74	Mar. 21	25.71	Mar. 28	24.97	Mar. 27	24.47
Apr. 24	25.60	Apr. 24	25.25	Apr. 24	25.09	Apr. 23	24.18
May 23	25.23	May 24	24.83	May 28	25.11	May 28	23.17
June 28	24.99	June 25	24.09	June 25	23.57	June 22	22.84
July 26	24.55	July 30	23.24	July 28	22.97	July 24	21.97
Aug. 27	24.33	Aug. 28	23.05	Aug. 27	23.38	Aug. 27	22.21
Sept. 26	24.20	Sept. 26	22.78	Sept. 26	23.17	Sept. 23	21.85
Oct. 25	24.61	Oct. 24	22.49	Oct. 28	23.74	Oct. 26	21.64
Nov. 21	24.91	Nov. 26	23.05	Nov. 26	24.12	Nov. 19	22.19
Dec. 20	25.85	Dec. 24	24.07	Dec. 29	24.12	Dec. 24	22.07

153--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26, 1960	22.17	Aug. 16, 1960	20.39	Oct. 7, 1960	20.71	Nov. 18, 1960	21.20
Feb. 24	21.96	23	20.37	13	20.80	29	21.46
Mar. 25	21.93	Sept. 1	20.59	20	20.88	Dec. 7	21.61
Apr. 28	21.50	8	20.58	27	21.07	14	21.81
May 24	21.67	15	20.61	Nov. 2	21.05	22	21.94
June 24	21.02	21	20.59	9	21.08	27	22.08
July 21	20.89	29	20.69				

187B. U. S. Navy. Aiea. Lat 21°22'40", long 157°56'05". Drilled industrial artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 in, depth 173 ft, cased to 143. Lsd 9.93 ft above msl. MP top of flange on 12-in T, 8.76 ft above msl. Highest water level 27.10 above msl, Feb. 23, 1937; lowest 15.06 above msl, Aug. 19, 1945. Records available: 1923, 1928-60.

Jan. 26, 1956	22.95	Dec. 23, 1957	21.20	July 28, 1958	19.57	May 25, 1960	18.55
Feb. 28	23.25	Jan. 23, 1958	20.18	Aug. 27	20.37	June 23	17.50
Mar. 28	22.02	Feb. 5	20.60	Sept. 25	20.05	July 20	17.79
Apr. 24	21.79	12	21.00	Oct. 30	20.94	Aug. 16	17.30
May 23	21.50	19	a21.10	Nov. 24	20.74	23	17.21
June 28	21.51	26	21.28	Dec. 23	20.54	Sept. 1	17.34
July 26	21.26	Mar. 6	21.70	Jan. 27, 1959	21.95	8	17.50
Aug. 27	21.08	12	22.11	Feb. 25	22.20	15	17.54
Sept. 25	20.64	19	22.10	Mar. 23	21.10	21	17.26
Oct. 25	21.05	27	22.17	Apr. 22	20.42	29	17.29
Nov. 21	21.98	Apr. 3	22.14	May 25	20.16	Oct. 7	17.31
Dec. 20	22.91	9	22.23	June 23	19.20	13	17.33
Jan. 24, 1957	23.29	17	22.2	July 22	18.61	20	17.35
Feb. 19	23.64	23	22.20	Aug. 24	18.87	27	17.70
Mar. 21	22.06	May 1	22.18	Sept. 22	18.29	Nov. 2	17.54
Apr. 22	21.95	8	22.25	Oct. 22	17.93	9	17.74
May 22	21.32	15	22.27	Nov. 20	18.76	18	17.91
June 25	20.42	26	22.29	Dec. 23	18.40	29	18.27
July 29	19.90	June 5	20.93	Jan. 25, 1960	18.78	Dec. 7	18.54
Aug. 23	19.56	12	20.29	Feb. 23	18.39	14	18.67
Sept. 25	19.19	19	19.89	Mar. 24	18.25	22	18.91
Oct. 22	18.97	25	19.70	Apr. 27	17.90	27	19.09
Nov. 25	20.11						

a Well being pumped.

190. U. S. Navy. McGrew Peninsula. Lat 21°22'47", long 157°56'38". Drilled unused artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 6 in, depth 300 ft, cased to 200. Lsd 22.73 ft above msl. MP top of  $\frac{1}{4}$ -in nipple, 19.98 ft above msl. Highest water level 25.41 above msl, Feb. 23, 1937; lowest 15.38 above msl, Aug. 24, 1945. Records available: 1910, 1918-19, 1929-59. Measurement discontinued.

Jan. 26, 1956	23.05	Mar. 21, 1957	22.07	Feb. 26, 1958	21.25	June 12, 1958	20.35
Feb. 28	23.18	Apr. 22	21.95	Mar. 6	21.66	19	19.93
Mar. 28	21.95	May 22	21.35	12	22.08	25	19.73
Apr. 24	21.77	June 25	20.45	19	22.08	July 28	19.68
May 23	21.48	July 29	19.94	27	22.12	Aug. 27	20.39
June 28	21.32	Aug. 23	19.58	Apr. 3	22.09	Sept. 25	19.99
July 26	21.19	Sept. 25	19.22	9	22.19	Oct. 30	20.94
Aug. 27	21.05	Oct. 22	18.97	17	22.14	Nov. 24	20.80
Sept. 25	20.67	Nov. 25	20.14	23	22.16	Dec. 23	20.59
Oct. 25	21.06	Dec. 23	21.22	May 1	22.14	Jan. 27, 1959	21.96
Nov. 21	21.92	Jan. 23, 1958	20.25	8	22.23	Feb. 25	22.14
Dec. 20	22.87	Feb. 5	20.64	15	22.25	Mar. 23	21.12
Jan. 29, 1957	23.62	12	20.95	26	22.27	Apr. 22	20.41
Feb. 19	23.54	19	21.07	June 5	20.96	May 25	20.12

193. L. L. McCandless Estate. Waimalu Valley. Lat 21°23'37", long 157°56'52". Drilled domestic artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 10 in, depth 363 ft, cased to 61. Lsd 13.05 ft above msl. MP top of cap on well, 22.93 ft above msl. Highest water level 28.88 above msl, March 1916; lowest 14.65 above msl, Sept. 25, 1945. Records available: 1902, 1910-59. Well sealed; measurement discontinued. Replaced by T-75.

Jan. 26, 1956	22.02	July 26, 1956	20.08	Jan. 24, 1957	22.47	July 29, 1957	19.11
Feb. 28	22.32	Aug. 27	20.08	Feb. 19	22.72	Aug. 23	18.84
Mar. 28	20.98	Sept. 25	19.77	Mar. 21	21.16	Sept. 25	18.38
Apr. 24	20.88	Oct. 25	20.14	Apr. 22	21.01	Oct. 22	18.20
May 23	20.57	Nov. 21	21.03	May 22	20.46	Nov. 25	19.34
June 28	20.52	Dec. 20	21.81	June 25	19.66	Dec. 23	20.42

193--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 23, 1958	19.32	Feb. 26, 1958	20.43	Mar. 25, 1958	21.37	Apr. 17, 1958	21.38
Feb. 5	19.86	Mar. 6	21.10	27	21.37	23	21.37
12	20.16	12	21.30	Apr. 3	21.34	May 1	21.39
19	20.31	19	21.18	9	21.40	8	21.42

Mean water level for the day, above msl, from recorder graph, 1958

19

	5	10	15	20	25	Eom
	20.92	20.71	20.64	20.36	19.42	19.13
	20.87	20.66	20.57	20.18	19.63	18.96
	20.75	21.22	20.88	19.86	19.32	18.78
	21.26	21.30	20.46	19.83	19.13	18.71
	e21.30	21.42	20.06	19.90	19.28	18.33
	21.17	21.37	20.11	19.45	19.42	18.29
						17.85
						17.91
						e17.54
						.....
						.....
						.....
						.....
						.....

e Estimated.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27, 1959	21.23	Apr. 22, 1959	19.69	July 22, 1959	17.94	Sept. 22, 1959	17.62
Feb. 25	21.44	May 25	19.30	Aug. 24	18.06	Oct. 22	17.29
Mar. 23	20.37	June 23	18.45				

201. U. S. Navy. Pearl City. Lat 21°23'35", long 157°58'20". Drilled irrigation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 in, depth 336 ft, cased to 58. Lsd 9.17 ft above msl. MP top of upper flange on valve, 13.17 ft above msl. Highest water level 31.21 above msl, February 1916; lowest 14.18 above msl, Aug. 28, 1946. Records available: 1910-60.

Jan. 26, 1956	20.06	Nov. 25, 1957	17.14	July 28, 1958	16.74	May 25, 1960	15.25
Feb. 28	20.00	Dec. 23	18.28	Aug. 27	17.02	June 23	14.59
Mar. 28	19.12	Jan. 23, 1958	17.23	Sept. 25	16.72	July 20	14.87
Apr. 24	18.92	Feb. 5	17.57	Oct. 30	17.85	Aug. 16	14.49
May 23	18.50	12	17.85	Nov. 24	17.71	23	14.39
June 28	18.43	19	18.06	Dec. 23	17.72	Sept. 1	14.49
July 26	18.08	26	18.12	Jan. 27, 1959	18.94	8	14.53
Aug. 27	18.02	Mar. 6	18.67	Feb. 25	18.82	15	14.52
Sept. 25	17.72	12	19.06	Mar. 23	17.98	21	14.35
Oct. 25	18.12	19	18.98	Apr. 22	17.02	29	14.44
Nov. 21	18.81	27	19.09	May 25	16.97	Oct. 7	14.40
Dec. 20	19.62	Apr. 3	18.95	June 23	16.14	13	14.42
Jan. 24, 1957	20.24	9	18.99	July 22	15.63	20	14.44
Feb. 19	20.39	17	19.03	Aug. 24	15.82	27	14.67
Mar. 21	18.97	23	19.00	Sept. 22	15.34	Nov. 2	14.66
Apr. 22	18.67	May 8	19.01	Oct. 22	15.09	9	14.62
May 22	18.27	15	19.04	Nov. 20	15.62	18	14.77
June 25	17.60	26	19.03	Dec. 23	15.43	29	15.18
July 29	16.84	June 5	17.92	Jan. 25, 1960	15.69	Dec. 7	15.37
Aug. 23	16.72	12	17.31	Feb. 23	15.48	14	15.53
Sept. 25	16.47	19	16.79	Mar. 24	15.35	22	15.67
Oct. 22	16.19	25	16.59	Apr. 27	15.05	27	15.99

244. B. P. Bishop Estate. Waipahu. Lat 21°23'18" long 158°00'32". Drilled domestic artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 in, depth 225 ft, cased to 58. Lsd 10.47 ft above msl. MP top of plate on main valve, 12.47 ft above msl. Highest water level 30.02 above msl, February 1916; lowest 14.80 above msl, July 26, 1945. Records available: 1910-21, 1923-60.

July 20, 1945. Records available. 1910-21, 1923-50.				Jan. 23, 1958				
Jan.	26, 1956	24.47	Sept. 25, 1956	20.17	May 22, 1957	21.02	Jan. 23, 1958	19.95
Feb.	28	21.87	Oct. 25	20.04	June 25	20.07	Feb. 5	21.17
Mar.	28	21.85	Nov. 21	22.71	July 29	19.58	12	21.61
Apr.	24	21.75	Dec. 20	23.62	Aug. 23	19.17	19	21.81
May	23	21.09	Jan. 24, 1957	24.74	Sept. 25	18.67	26	21.85
June	28	21.02	Feb. 19	24.20	Oct. 22	18.60	Mar. 6	22.67
July	26	20.68	Mar. 21	21.78	Nov. 25	20.68	12	23.06
Aug.	27	20.63	Apr. 22	21.97	Dec. 23	22.30	19	22.97

244--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 27, 1958	22.97	Sept. 25, 1958	19.39	Nov. 20, 1959	17.95	Sept. 21, 1960	16.22
Apr. 3	22.87	Oct. 30	21.27	Dec. 23	17.75	29	16.27
9	22.90	Nov. 24	20.81	Jan. 25, 1960	18.24	Oct. 7	16.22
17	22.97	Dec. 23	20.81	Feb. 23	17.98	13	16.27
23	22.88	Jan. 27, 1959	23.05	Mar. 24	17.82	20	16.28
May 1	23.27	Feb. 25	22.90	Apr. 27	17.25	27	16.27
8	23.01	Mar. 23	21.13	May 25	17.60	Nov. 2	16.60
15	23.02	Apr. 22	20.07	June 23	16.77	9	16.59
26	23.00	May 25	19.94	July 20	17.08	18	16.74
June 5	20.77	June 23	18.65	Aug. 16	16.39	29	17.50
12	19.92	July 22	17.91	23	16.31	Dec. 7	17.82
19	19.33	Aug. 24	18.22	Sept. 1	16.09	14	17.98
25	19.08	Sept. 22	17.58	8	16.52	22	18.18
July 28	18.92	Oct. 22	17.10	15	16.42	27	18.94
Aug. 27	20.04						

266. Hawaii Meat Co. Honolulu. Lat 21°21'55", long 158°01'52". Drilled irrigation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 10 in (previously reported 12 in), depth 355 ft, cased to 165. Lsd 12.66 ft above msl. MP top of blind flange on well, 15.16 ft above msl. Highest water level 29.16 above msl, April 1918; lowest 12.54 above msl, Sept. 24, 1945. Records available: 1910-60.

Jan. 26, 1956	24.46	Dec. 23, 1957	21.50	July 28, 1958	17.82	May 25, 1960	15.98
Feb. 28	22.60	Jan. 23, 1958	18.52	Aug. 27	18.63	June 23	14.96
Mar. 28	20.69	Feb. 5	21.04	Sept. 25	18.14	July 20	15.51
Apr. 24	20.43	12	21.77	Oct. 30	21.33	Aug. 16	14.71
May 23	19.83	19	22.09	Nov. 24	19.88	23	14.58
June 28	19.70	26	22.17	Dec. 23	19.76	Sept. 1	14.59
July 26	a19.17	Mar. 6	22.99	Jan. 27, 1959	22.07	8	14.79
Aug. 27	19.18	12	23.44	Feb. 25	21.69	15	14.58
Sept. 25	18.66	19	23.44	Mar. 23	20.20	21	14.42
Oct. 25	19.50	27	23.60	Apr. 22	18.74	29	14.46
Nov. 21	22.54	Apr. 3	23.24	May 25	18.95	Oct. 7	14.40
Dec. 20	22.41	9	23.29	June 23	17.29	13	14.42
Jan. 24, 1957	25.13	17	23.42	July 22	16.39	20	14.43
Feb. 19	23.38	23	23.25	Aug. 24	16.75	27	14.70
Mar. 21	20.56	May 1	23.36	Sept. 22	15.96	Nov. 2	14.91
Apr. 22	20.86	8	23.36	Oct. 22	15.47	9	14.92
May 22	e19.8	15	23.36	Nov. 20	16.60	18	15.07
June 25	e18.1	26	23.32	Dec. 23	16.35	29	16.04
July 29	e17.6	June 5	19.44	Jan. 25, 1960	17.12	Dec. 7	16.17
Aug. 23	e17.0	12	18.29	Feb. 23	16.54	14	16.38
Sept. 25	e16.3	19	18.02	Mar. 24	16.37	22	16.73
Oct. 22	e16.2	25	17.76	Apr. 27	15.81	27	17.83
Nov. 25	e20.2						

a Well being pumped.

e Estimated.

276. Ewa Plantation Co. Gilbert. Lat 21°20'16", long 158°06'35" (previously reported long 158°16'35"). Drilled battery of four irrigation artesian basal-water wells in basalt of Waianae Volcanic Series, Pliocene (?) age, diam 12 in, average depth 160 ft. Lsd 40.58 ft above msl. Highest water level 16.7 above msl, February 1909; lowest 10.83 above msl, Aug. 27, 1960. Records available: 1905, 1908-60. Records furnished by Ewa Plantation Co.

Jan. 1956	13.42	June 1957	12.24	July 29, 1958	12.27	Nov. 30, 1958	13.21
Feb.	13.58	July	12.12	30	12.31	Dec. 6	12.85
Mar.	12.77	Aug.	11.82	31	12.31	12	12.49
Apr.	12.45	Sept.	12.07	Aug. 15	12.46	19	12.57
May	12.28	Oct.	11.60	17	13.09	26	13.12
June	12.08	Nov.	12.29	31	13.02	31	13.33
July	12.08	Dec.	13.03	Sept. 4	12.43	Jan. 2, 1959	13.40
Aug.	11.73	Jan. 15, 1958	12.27	12	11.93	9	13.25
Sept.	12.04	27	12.56	20	12.85	16	12.39
Oct.	12.14	Feb. 1	12.29	30	12.01	23	13.56
Nov.	12.85	2	12.81	Oct. 11	12.11	31	13.31
Dec.	13.13	July 4	11.88	18	12.10	Feb. 6	12.70
Jan. 1957	13.30	5	12.20	24	12.73	13	13.29
Feb.	13.71	6	11.95	31	13.23	20	13.56
Mar.	12.75	13	12.29	Nov. 7	12.41	27	12.98
Apr.	12.56	27	12.04	14	12.66	Mar. 6	12.48
May	12.29	28	12.27	21	12.37	13	12.61

276--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 20, 1959	12.87	June 6, 1959	12.06	Oct. 17, 1959	11.73	Mar. 27, 1960	12.23
27	12.77	13	12.06	Nov. 6	11.72	Apr. 30	11.81
Apr. 3	12.73	20	12.29	13	11.58	May 30	12.12
10	11.98	22	12.57	21	11.84	June 27	11.89
17	12.72	July 5	12.14	27	12.56	July 31	11.32
24	12.23	11	11.71	Dec. 5	11.79	Aug. 27	10.83
May 1	12.23	19	12.09	11	11.54	29	11.73
9	12.50	Aug. 2	12.04	19	11.68	Sept. 25	10.84
16	12.38	7	12.56	25	12.16	Oct. 31	11.79
22	11.77	17	12.09	Jan. 30, 1960	11.73	Nov. 30	11.29
30	12.21	Sept. 6	12.24	Feb. 28	12.46	Dec. 31	11.38

286. Waialua Agricultural Co. Kawaiapai. Lat 21°34'46", long 158°10'49". Drilled unused artesian basal-water well in basalt of Waianae Volcanic Series, Pliocene (?) age, diam 1 in, depth 447 ft, cased to 447, perforated 410-447. Lsd 11.54 ft above msl. MP top of vertical flange on 1-in T, 14.17 ft above msl. Highest water level 19.23 above msl, Oct. 30, 1952; lowest 16.34 above msl, June 26, 1936. Records available: 1929-60.

Jan. 27, 1956	17.81	Apr. 23, 1957	18.21	July 24, 1958	17.83	Oct. 23, 1959	18.33
Feb. 29	18.03	May 27	17.84	Aug. 26	18.12	Nov. 23	18.57
Mar. 27	17.77	June 26	17.69	Sept. 24	18.06	Dec. 22	18.41
Apr. 23	17.45	July 23	17.89	Oct. 31	18.48	Jan. 22, 1960	18.50
May 22	17.58	Aug. 27	17.72	Nov. 21	18.20	Feb. 25	18.60
June 25	17.54	Sept. 27	17.81	Dec. 22	18.48	Mar. 23	18.28
July 24	17.61	Oct. 23	17.79	Jan. 28, 1959	18.60	Apr. 25	18.05
Aug. 28	17.73	Nov. 27	18.31	Feb. 24	18.52	May 27	17.81
Sept. 24	17.80	Dec. 27	18.40	Mar. 30	18.17	June 30	17.82
Oct. 24	17.97	Jan. 29, 1958	17.67	Apr. 21	18.30	July 22	17.83
Nov. 20	18.11	Feb. 24	18.22	May 26	18.03	Aug. 25	17.99
Dec. 18	18.35	Mar. 25	18.28	June 24	17.98	Sept. 23	17.97
Jan. 23, 1957	18.47	Apr. 22	18.22	July 23	18.05	Oct. 19	18.10
Feb. 18	18.33	May 22	18.25	Aug. 25	18.49	Nov. 30	18.32
Mar. 25	17.79	June 26	17.44	Sept. 21	18.61	Dec. 28	18.59

308. J. F. Mendonca. Mokuleia. Lat 21°34'35", long 158°09'11". Drilled irrigation artesian basal-water well in basalt of Waianae Volcanic Series, Pliocene (?) age, diam 10 to 8 in, depth 548 ft, cased to 440. Lsd 8.46 ft above msl. MP top of flange on well 307, 7.51 ft above msl. Highest water level 20.64 above msl, Oct. 26, 1939; lowest 16.81 above msl, July 25, 1927. Records available: 1924-60.

Jan. 27, 1956	19.62	Apr. 23, 1957	19.48	July 24, 1958	19.32	Oct. 23, 1959	19.62
Feb. 29	20.32	May 27	19.12	Aug. 26	19.62	Nov. 23	20.02
Mar. 27	18.95	June 26	18.80	Sept. 24	19.52	Dec. 28	19.72
Apr. 23	19.12	July 23	18.94	Oct. 31	19.95	Jan. 22, 1960	19.52
May 22	19.22	Aug. 27	18.85	Nov. 21	19.53	Feb. 25	19.57
June 25	19.22	Sept. 27	19.42	Dec. 22	19.62	Mar. 23	19.22
July 24	19.22	Oct. 23	19.32	Jan. 28, 1959	19.52	Apr. 25	19.32
Aug. 28	19.32	Nov. 27	19.84	Feb. 24	19.45	May 27	19.92
Sept. 24	19.42	Dec. 27	19.72	Mar. 30	19.12	June 30	19.02
Oct. 24	19.82	Jan. 29, 1958	18.94	Apr. 21	19.32	July 22	19.14
Nov. 20	19.92	Feb. 24	19.32	May 26	19.02	Aug. 25	19.35
Dec. 18	19.82	Mar. 25	19.42	June 24	19.22	Sept. 23	19.37
Jan. 23, 1957	19.82	Apr. 22	19.12	July 23	19.25	Oct. 19	19.52
Feb. 18	19.72	May 22	19.16	Aug. 25	19.62	Nov. 30	19.74
Mar. 25	19.22	June 26	18.52	Sept. 21	19.82	Dec. 28	19.84

326. Waialua Agricultural Co. Waialua. Lat 21°34'56", long 158°06'52". Drilled irrigation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 8 in, depth 201 ft, cased to 114. Lsd 6.19 ft above msl. MP top of blind flange on well, 4.69 ft above msl. Highest water level 13.35 above msl, December 1914; lowest 9.19 above msl, Apr. 24, 1946. Records available: 1911-21, 1924-60.

Jan. 27, 1956	11.96	Nov. 20, 1956	12.39	Sept. 27, 1957	11.24	July 24, 1958	11.69
Feb. 29	12.03	Dec. 18	12.56	Oct. 23	11.13	Aug. 26	12.07
Mar. 27	11.64	Jan. 23, 1957	12.69	Nov. 27	11.95	Sept. 24	11.78
Apr. 23	11.59	Feb. 18	12.59	Dec. 27	11.89	Oct. 31	12.22
May 22	11.55	Mar. 25	12.22	Jan. 29, 1958	11.14	Nov. 21	12.10
June 25	11.82	Apr. 23	11.84	Feb. 24	11.92	Dec. 22	12.24
July 24	11.62	May 27	11.48	Mar. 25	12.04	Jan. 28, 1959	12.19
Aug. 28	11.82	June 26	11.03	Apr. 22	11.76	Feb. 24	12.14
Sept. 24	11.94	July 23	11.15	May 22	11.79	Mar. 30	11.69
Oct. 24	12.02	Aug. 27	11.37	June 26	10.61	Apr. 21	11.39

326--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 26, 1959	11.26	Oct. 23, 1959	10.87	Mar. 23, 1960	11.28	Aug. 25, 1960	10.22
June 24	10.89	Nov. 23	11.59	Apr. 25	11.03	Sept. 23	10.47
July 23	10.82	Dec. 22	11.57	May 27	10.92	Oct. 19	10.86
Aug. 25	11.41	Jan. 22, 1960	11.03	June 30	10.46	Nov. 30	11.30
Sept. 21	11.43	Feb. 25	11.48	July 22	10.26	Dec. 28	11.59

337. State of Hawaii. Waiālē. Lat  $21^{\circ}41'30''$ , long  $158^{\circ}01'25''$ . Drilled unused artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 8 in., depth 63 ft, cased to 36. Lsd 21.45 ft above msl. MP top of 4-in. pipe, 21.89 ft above msl. Highest water level 15.60 above msl, Nov. 14, 1932; lowest 11.70 above msl, May 27, 1947. Records available: 1929-60.

Jan. 27, 1956	13.30	May 27, 1957	13.22	Aug. 26, 1958	13.59	Oct. 23, 1959	13.72
Feb. 29	13.98	June 26	13.38	Sept. 24	13.45	Nov. 23	13.87
Mar. 27	13.55	July 23	13.22	Oct. 31	12.63	Dec. 22	13.82
Apr. 23	13.30	Aug. 27	13.84	Nov. 7	12.71	Jan. 22, 1960	13.55
May 22	13.17	Sept. 27	13.40	21	12.10	Feb. 25	13.51
June 25	13.13	Oct. 23	13.45	Dec. 22	13.45	Mar. 23	13.33
July 24	13.01	Nov. 27	13.75	Jan. 28, 1959	13.75	Apr. 25	13.15
Aug. 28	13.23	Dec. 27	13.25	Feb. 24	13.67	May 27	12.77
Sept. 24	13.72	Jan. 29, 1958	13.10	Mar. 30	13.70	June 30	12.77
Oct. 24	13.75	Feb. 24	13.42	Apr. 21	13.74	July 22	12.73
Nov. 20	13.67	Mar. 25	13.18	May 26	13.65	Aug. 25	12.84
Dec. 18	13.60	Apr. 22	13.10	June 24	13.71	Sept. 23	12.90
Jan. 23, 1957	14.10	May 27	13.24	July 23	13.86	Oct. 19	13.29
Feb. 18	13.64	June 26	13.31	Aug. 25	14.02	Nov. 30	13.33
Mar. 25	13.57	July 29	13.42	Sept. 21	13.80	Dec. 28	13.36
Apr. 23	13.31						

356. Kahuku Plantation Co. Kahuku. Lat  $21^{\circ}40'54''$ , long  $157^{\circ}57'04''$ . Drilled industrial artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 in., depth 420 ft, cased to 156. Lsd 8.83 ft above msl. MP top of vertical flange on valve of fire hydrant, 9.83 ft above msl. Highest water level 17.12 above msl, January 1916; lowest 8.46 above msl, Aug. 25, 1960. Records available: 1908, 1911-18, 1921, 1924-60.

Jan. 27, 1956	12.21	Apr. 23, 1957	11.19	July 24, 1958	9.29	Oct. 23, 1959	8.71
Feb. 29	12.48	May 27	9.75	Aug. 26	10.18	Nov. 23	10.45
Mar. 27	10.41	June 26	8.89	Sept. 24	9.34	Dec. 22	10.27
Apr. 23	11.36	July 23	8.95	Oct. 31	10.89	Jan. 22, 1960	10.87
May 22	9.86	Aug. 27	8.77	Nov. 21	10.57	Feb. 25	11.05
June 25	9.85	Sept. 25	8.69	Dec. 22	11.70	Mar. 23	11.49
July 24	9.57	Oct. 23	9.63	Jan. 28, 1959	12.04	Apr. 25	10.01
Aug. 28	9.58	Nov. 27	11.39	Feb. 24	11.37	May 27	9.02
Sept. 24	9.83	Dec. 27	12.25	Mar. 30	10.25	June 30	8.92
Oct. 24	9.35	Jan. 29, 1958	11.20	April 21	9.63	July 22	8.80
Nov. 20	11.40	Feb. 24	12.03	May 26	9.23	Aug. 25	8.46
Dec. 18	12.27	Mar. 25	12.28	June 24	8.92	Sept. 23	8.89
Jan. 23, 1957	12.10	Apr. 22	12.18	July 23	9.51	Oct. 19	8.74
Feb. 18	11.68	May 27	12.50	Aug. 25	9.56	Nov. 30	10.05
Mar. 25	10.36	June 26	9.29	Sept. 21	9.26	Dec. 28	10.63

396. Kahuku Plantation Co. Hauula. Lat  $21^{\circ}36'22''$ , long  $157^{\circ}54'36''$ . Drilled domestic and irrigation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 8 in. Lsd 10.36 ft above msl. MP top of blind flange on well, 15.52 ft above msl. Highest water level 24.98 above msl, June 1918; lowest 16.68 above msl, Sept. 23, 1953. Records available: 1911-19, 1921, 1924-60.

Jan. 27, 1956	19.78	Apr. 23, 1957	19.78	July 24, 1958	18.95	Oct. 23, 1959	18.30
Feb. 29	20.46	May 27	19.19	Aug. 26	19.04	Nov. 23	18.95
Mar. 27	20.20	June 26	18.02	Sept. 24	19.26	Dec. 22	18.30
Apr. 23	19.57	July 23	18.21	Oct. 31	19.48	Jan. 22, 1960	18.55
May 22	18.94	Aug. 27	18.02	Nov. 21	19.25	Feb. 25	18.52
June 25	19.34	Sept. 27	17.88	Dec. 22	19.66	Mar. 23	19.56
July 24	19.02	Oct. 23	18.05	Jan. 28, 1959	20.10	April 25	19.46
Aug. 28	19.25	Nov. 27	19.04	Feb. 24	19.98	May 27	19.12
Sept. 24	18.77	Dec. 27	20.04	Mar. 30	19.59	June 28	18.35
Oct. 24	19.17	Jan. 29, 1958	19.33	April 21	19.73	July 22	18.60
Nov. 20	19.11	Feb. 24	19.47	May 26	18.94	Aug. 25	17.95
Dec. 18	19.97	Mar. 25	19.97	June 24	18.67	Sept. 23	18.08
Jan. 23, 1957	19.80	Apr. 22	19.84	July 23	18.48	Oct. 19	18.17
Feb. 18	20.24	May 27	20.01	Aug. 25	18.49	Nov. 29	18.56
Mar. 25	19.18	June 26	18.20	Sept. 21	18.67	Dec. 21	18.73

405. M. E. Foster Estate, Kahana. Lat 21°33'27", long 157°52'44". Drilled domestic artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 10 in, depth 441 ft, cased to 177. Lsd 5.76 ft above msl. MP top of flange on well, 5.76 ft above msl. Highest water level 21.07 above msl, July 25, 1938; lowest 14.80 above msl, Oct. 28, 1946. Records available: 1936-60.

Date	Water level						
Jan. 27, 1956	18.06	Apr. 23, 1957	19.22	July 24, 1958	17.76	Oct. 23, 1959	16.66
Feb. 29	20.06	May 27	18.76	Aug. 26	18.08	Nov. 23	16.56
Mar. 27	18.75	June 26	18.23	Sept. 24	18.16	Dec. 28	16.36
Apr. 23	18.96	July 23	18.18	Oct. 31	18.09	Jan. 22, 1960	16.46
May 22	18.76	Aug. 27	17.58	Nov. 21	18.38	Feb. 25	16.36
June 25	18.36	Sept. 27	17.66	Dec. 22	18.21	Mar. 23	17.06
July 24	18.26	Oct. 23	17.26	Jan. 28, 1959	18.55	Apr. 25	17.86
Aug. 28	18.26	Nov. 27	17.28	Feb. 24	18.56	May 27	18.06
Sept. 24	18.06	Dec. 27	18.38	Mar. 30	18.30	June 28	18.12
Oct. 24	18.06	Jan. 29, 1958	18.28	Apr. 21	18.16	July 22	17.58
Nov. 20	18.06	Feb. 24	18.06	May 26	17.79	Aug. 25	18.30
Dec. 18	18.46	Mar. 25	18.36	June 24	17.76	Sept. 23	17.36
Jan. 23, 1957	18.56	Apr. 22	18.36	July 23	17.31	Oct. 19	17.54
Feb. 18	18.96	May 27	18.48	Aug. 25	17.26	Nov. 29	17.49
Mar. 25	19.16	June 26	18.08	Sept. 21	16.95	Dec. 21	17.26

406. Mrs. F. M. Swanzy, Kaaawa. Lat 21°32'41", long 157°51'00". Drilled irrigation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 9 in, depth 500 (?) ft. Lsd 10.27 ft above msl. MP chiseled cross on top of concrete box, 12.67 ft above msl. Highest water level 18.37 above msl, July 25, 1938; lowest 12.35 above msl, Aug. 27, 1946. Records available: 1929-60.

Date	Water level						
Jan. 27, 1956	15.53	Apr. 23, 1957	17.05	July 24, 1958	15.81	Oct. 23, 1959	14.72
Feb. 29	15.94	May 27	16.13	Aug. 26	15.87	Nov. 23	14.30
Mar. 27	16.13	June 26	16.54	Sept. 24	15.81	Dec. 22	14.34
Apr. 23	16.36	July 23	16.34	Oct. 31	15.85	Jan. 22, 1960	14.31
May 22	16.43	Aug. 27	16.03	Nov. 21	15.92	Feb. 25	14.18
June 25	16.31	Sept. 27	15.87	Dec. 22	15.96	Mar. 23	14.55
July 24	16.21	Oct. 23	15.55	Jan. 28, 1959	16.07	Apr. 25	14.98
Aug. 28	15.85	Nov. 27	15.50	Feb. 24	16.12	May 27	15.37
Sept. 24	15.97	Dec. 27	15.85	Mar. 30	15.89	June 28	15.45
Oct. 24	15.96	Jan. 29, 1958	15.87	Apr. 21	15.84	July 22	15.52
Nov. 20	16.02	Feb. 24	15.74	May 26	15.72	Aug. 25	15.45
Dec. 18	17.17	Mar. 25	16.21	June 24	15.48	Sept. 23	15.38
Jan. 23, 1957	16.54	Apr. 22	16.18	July 23	15.23	Oct. 19	15.38
Feb. 18	16.76	May 27	16.21	Aug. 25	15.11	Nov. 29	15.22
Mar. 25	17.03	June 26	15.94	Sept. 21	14.99	Dec. 21	15.11

T-5. Honolulu Board of Water Supply. Formerly Honolulu Suburban Water System. Near Makaiwa Gulch. Lat 21°20'55", long 158°07'05". Drilled observation basal water-table well in basalt of Waianae Volcanic Series, Pliocene (?) age, diam 6 in, depth 100 ft, cased to 85. Lsd 79.13 ft above msl. MP top of casing, 80.20 ft above msl. Highest water level 5.48 above msl, Mar. 27, 1951; lowest 2.53 above msl, June 27, 1939. Records available: 1939-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 25, 1956	4.64	May 22, 1957	4.31	July 20, 1958	4.23	Oct. 22, 1959	4.35
Feb. 28	4.55	June 24	4.33	Aug. 27	4.57	Nov. 19	4.42
Mar. 29	4.22	July 24	4.14	Sept. 25	4.49	Dec. 23	4.39
Apr. 24	4.17	Aug. 26	4.47	Oct. 30	4.87	Jan. 25, 1960	4.24
May 23	4.10	Sept. 25	4.33	Nov. 24	4.72	Feb. 24	4.15
June 29	4.06	Oct. 24	4.29	Dec. 24	4.65	Mar. 24	4.07
July 25	4.05	Nov. 25	4.52	Jan. 27, 1959	4.74	Apr. 26	3.95
Aug. 27	4.33	Dec. 26	4.71	Feb. 25	4.69	May 26	3.95
Sept. 26	4.48	Jan. 24, 1958	4.31	Mar. 25	4.58	June 23	3.83
Oct. 25	4.37	Feb. 25	4.68	Apr. 22	4.43	July 21	3.95
Nov. 23	4.90	Mar. 27	4.80	May 27	4.37	Aug. 23	3.78
Dec. 19	5.02	Apr. 23	4.59	June 22	4.39	Sept. 22	3.88
Jan. 25, 1957	5.35	May 23	4.80	July 22	4.30	Oct. 21	4.05
Feb. 20	5.03	26	4.83	Aug. 26	4.63	Dec. 2	4.12
Mar. 22	4.60	June 25	4.22	Sept. 23	4.55	27	4.27
Apr. 22	4.46						

T-15. Honolulu Board of Water Supply. Formerly Honolulu Suburban Water System. Nanakuli Valley. Lat 21°23'50", long 158°07'20". Drilled observation basal water-table well in basalt of Waianae Volcanic Series, Pliocene (?) age, diam 3 in, depth 489 ft, cased to 488, perforated 468-488. Lsd 478.64 ft above msl. MP top of casing, 479.64 ft above msl. Highest water level 3.14 above msl, Feb. 25, 1943; lowest 1.57 above msl, Dec. 15, 1960. Records available: 1940-60.

T-15--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 20, 1956	2.63	June 24, 1957	2.32	Oct. 30, 1958	2.60	Dec. 21, 1959	2.22
June 29	2.18	Sept. 25	2.16	Jan. 29, 1959	3.06	Apr. 26, 1960	1.98
Sept. 26	2.11	Dec. 27	2.22	Apr. 28	2.64	Sept. 7	1.79
Dec. 19	2.10	Apr. 21, 1958	2.73	Aug. 26	2.12	Dec. 15	1.57
Mar. 22, 1957	2.74	July 30	2.42				

T-20. U. S. Navy. Near Ewa. Lat 21°21'36", long 158°03'45". Drilled observation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 6 in, depth 137 ft, cased to 9. Lsd 139.50 ft above msl. MP top of casing, 139.50 ft above msl. Highest water level 19.28 above msl, Jan. 28, 1943; lowest 15.57 above msl, Sept. 22, 1960. Records available: 1942-60.

Jan. 25, 1956	18.10	May 22, 1957	17.32	May 8, 1958	18.35	June 22, 1959	16.69
Feb. 28	18.39	June 24	16.95	15	18.36	July 22	16.47
Mar. 29	17.55	July 24	16.83	23	18.35	Aug. 26	16.74
Apr. 24	17.22	Aug. 26	16.76	26	18.30	Sept. 23	16.62
May 23	16.92	Sept. 25	16.55	June 5	17.90	Oct. 22	16.35
June 29	16.74	Oct. 24	16.32	12	17.51	Nov. 19	16.58
July 25	16.61	Nov. 25	16.85	19	17.18	Dec. 23	16.56
Aug. 27	16.53	Dec. 26	17.52	25	17.02	Jan. 25, 1960	16.58
Sept. 26	16.64	Jan. 24, 1958	17.25	July 29	16.72	Feb. 24	16.48
Oct. 25	16.90	Feb. 19	17.75	Aug. 27	17.12	Mar. 24	16.62
Nov. 23	17.41	25	17.82	Sept. 25	16.94	Apr. 26	16.47
Dec. 19	18.10	Mar. 6	18.03	Oct. 30	17.20	May 26	16.50
Jan. 25, 1957	18.46	12	18.13	Nov. 24	17.35	June 23	16.30
Feb. 20	18.88	19	18.23	Dec. 24	17.22	July 21	16.27
Mar. 22	17.91	27	18.34	Jan. 27, 1959	17.94	Aug. 23	15.80
Apr. 22	17.67	Apr. 3	18.30	Feb. 25	18.00	Sept. 22	15.57
May 13	17.43	9	18.31	Mar. 25	17.72	Oct. 21	15.60
14	17.40	17	18.36	Apr. 22	17.37	Dec. 2	15.94
15	17.44	23	18.38	May 27	16.90	27	16.01
16	17.31	May 1	18.33				

T-24. Honolulu Board of Water Supply. Manaiki Gulch. Lat 21°21'27", long 157°53'10". Drilled observation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 in, depth 115 ft, cased to 66. Lsd 58.40 ft above msl. MP top of casing, 61.05 ft above msl. Highest water level 26.50 above msl, Feb. 11, 1957; lowest 20.32 above msl, Aug. 26, 1960. Records available: 1945-60. Records furnished by Honolulu Board of Water Supply.

## Mean water level for the day, above msl, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	25.68	26.20	26.18	25.70	25.28	25.08	24.82	24.43	24.32	24.09	24.63	25.44
10	25.73	26.13	26.03	25.63	25.23	25.10	24.72	24.23	24.24	24.14	24.54	25.49
15	25.80	26.26	25.86	25.52	25.22	25.08	24.63	24.17	24.12	24.24	24.58	25.64
20	25.87	26.32	25.76	25.40	25.18	25.04	24.54	24.25	24.25	24.10	24.39	24.75
25	25.94	26.29	25.74	25.42	25.07	25.05	24.95	24.13	24.09	24.48	25.02	25.78
Eom	26.08	....	25.71	25.41	25.10	24.90	24.49	24.14	24.10	24.55	25.23	25.69

1957

5	e25.64	26.37	26.00	25.27	25.12	24.51	23.94	23.20	23.11	22.64	22.54	23.51
10	25.45	26.47	25.86	25.20	24.94	24.42	23.84	23.16	23.00	22.54	22.62	23.66
15	e25.57	26.45	25.68	25.25	24.91	24.26	23.75	23.07	22.95	22.52	22.68	23.84
20	e25.78	26.48	25.65	25.21	24.90	24.18	23.62	23.02	22.87	22.52	22.71	23.98
25	25.91	26.36	25.61	25.19	e24.78	24.08	23.40	22.98	22.76	22.46	23.01	24.07
Eom	26.19	26.16	25.42	25.20	....	23.97	23.25	23.01	22.72	22.44	23.33	24.28

1958

5	24.34	23.79	24.41	25.03	25.04	24.52	23.22	22.98	23.34	23.25	23.98	24.09
10	24.26	23.97	24.70	25.02	25.08	24.21	23.17	23.17	23.30	23.23	24.04	24.13
15	24.19	24.10	24.87	25.03	25.18	23.98	23.10	23.28	23.23	23.27	24.00	24.16
20	24.06	24.15	24.91	25.10	25.15	23.62	23.12	23.29	23.15	23.37	24.09	23.88
25	23.78	24.17	24.94	25.03	25.06	23.44	23.01	23.34	23.12	e23.40	24.09	23.77
Eom	23.61	24.30	25.01	25.06	24.88	23.29	22.90	23.29	23.17	23.82	24.17	24.07

1959

5	24.24	24.81	24.90	24.44	23.76	23.11	22.55	21.91	22.00	21.71	21.99	22.08
10	24.24	24.79	24.81	24.26	23.57	23.13	22.28	22.28	22.10	21.53	22.14	22.03
15	24.32	24.84	24.73	24.32	23.30	23.03	22.25	22.35	22.00	21.65	22.18	22.10
20	24.65	24.93	24.55	24.25	23.25	22.80	22.16	22.23	21.90	21.60	22.10	22.07
25	24.84	25.06	24.48	24.05	23.26	22.63	21.94	22.14	21.74	21.59	22.08	22.12
Eom	24.83	25.04	24.43	23.95	23.28	22.58	21.87	22.44	21.75	21.56	22.24	22.16

e Estimated.

## T-24--Continued.

1960												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	22.22	21.94	21.93	21.69	21.3	21.4	21.15	20.57	20.43	20.66	20.94	21.48
10	22.17	21.86	22.17	21.68	21.31	21.24	21.0	20.50	20.58	20.76	20.94	21.54
15	22.08	21.88	22.21	21.58	21.48	21.14	21.07	20.43	20.53	20.76	21.13	21.72
20	22.19	21.96	22.0	21.68	21.65	21.13	20.98	20.34	20.53	20.78	21.22	21.84
25	22.18	21.92	21.90	21.64	21.69	20.97	20.87	20.34	20.5	20.93	21.30	21.96
Eom	22.10	21.91	21.76	21.38	21.65	21.01	20.67	20.41	20.61	20.97	21.35	22.05

T-25. Honolulu Board of Water Supply. Waimalu Valley, near Pearl Harbor. Lat 21° 23'35", long 157°56'48". Drilled observation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 in., depth 177 ft, cased to 42. Lsd 24.40 ft above msl. MP top of casing, 26.91 ft above msl. Highest water level 21.10 above msl, Mar. 23, 1955; lowest 16.10 above msl, Sept. 25, 1953. Records available: 1945-59. Measurement discontinued. Records furnished by Honolulu Board of Water Supply.

Mean water level for the day, above msl, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	20.01	20.46	20.35	19.60	19.42	19.20	19.15	18.95	18.70	18.45	19.06	20.08
10	19.82	20.55	20.05	19.57	19.20	19.45	19.00	18.87	18.67	18.48	18.85	20.21
15	20.25	20.65	19.60	19.50	19.20	19.42	19.15	18.80	18.60	18.95	18.70	20.25
20	20.12	20.62	19.51	19.20	19.30	19.25	19.00	18.90	18.52	19.05	19.46	20.20
25	20.15	20.70	19.62	19.35	19.10	19.36	18.92	18.75	18.52	18.80	19.75	20.23
Eom	20.42	20.50	19.90	19.50	19.06	19.30	18.87	18.65	18.62	18.98	20.00	20.16

1957												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	19.90	20.97	19.93	19.35	19.45	18.60	18.35	18.00	17.80	17.35	17.35	18.60
10	19.44	20.96	20.05	19.35	18.95	18.60	18.20	18.15	17.78	17.26	17.70	18.75
15	19.78	20.82	19.55	19.56	19.05	18.55	18.20	17.85	17.72	17.22	17.55	18.90
20	20.45	20.80	19.62	19.55	19.15	18.43	18.15	17.85	17.48	17.24	17.55	19.00
25	20.10	20.40	19.65	19.45	18.95	18.35	18.04	18.02	17.42	17.20	18.20	19.00
Eom	20.92	20.10	19.57	19.45	18.70	18.32	18.02	17.97	17.45	17.15	18.40	19.00

1958												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	19.10	18.58	.....	19.86	19.86	18.96	18.05	18.16	18.24	18.14	18.90	18.62
10	18.85	18.77	19.96	19.82	19.89	18.60	17.77	18.67	18.21	18.09	18.88	18.68
15	18.85	18.87	19.92	19.84	19.90	18.35	17.76	18.59	18.26	18.09	18.85	18.95
20	18.48	18.94	19.89	19.88	19.88	18.12	18.08	18.44	18.14	18.23	18.75	18.83
25	18.08	19.06	19.89	19.85	19.86	17.96	17.96	18.45	18.11	18.78	18.77	18.92
Eom	17.92	19.41	19.85	19.85	19.76	17.86	17.77	18.39	18.11	18.98	19.00	19.27

1959												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	19.50	19.25	19.25	19.17	18.30	18.05	17.52	17.04	17.10	e17.0	.....	.....
10	19.42	19.24	19.23	18.83	18.47	17.95	17.35	17.75	17.05	.....	.....	.....
15	19.33	19.70	19.48	18.70	18.15	17.87	17.18	17.55	17.00	.....	.....	.....
20	19.73	19.70	19.00	18.77	18.10	17.70	17.18	17.20	16.90	.....	.....	.....
25	19.77	19.90	18.85	18.70	18.25	17.40	17.13	17.12	16.80	.....	.....	.....
Eom	19.64	19.82	18.85	18.30	18.30	17.35	17.08	17.12	16.73	.....	.....	.....

e Estimated.

T-27. Honolulu Board of Water Supply. Pearl City. Lat 21°23'55", long 157°58'30". Drilled observation basal water-table well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 in., depth 71 ft, cased to 60. Lsd 47 ft above msl. MP top of casing, 48.10 ft above msl. Highest water level 22.42 above msl, Mar. 29, 1955; lowest 15.22 above msl, Sept. 21, 1960. Records available: 1946-60. Records furnished by Honolulu Board of Water Supply.

Mean water level for the day, above msl, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	21.30	21.80	21.50	20.65	20.20	20.06	19.95	19.48	19.43	18.98	19.76	21.04
10	21.24	21.70	21.10	20.60	20.06	20.20	19.72	19.42	19.40	19.01	19.50	21.18
15	21.45	21.88	20.82	20.50	20.15	20.08	19.70	19.45	19.16	19.42	19.30	21.25
20	21.49	21.90	20.70	20.17	20.15	19.99	19.46	19.60	19.07	19.55	20.12	21.17
25	21.56	21.73	20.75	20.35	19.87	20.08	19.50	19.37	19.10	19.52	20.56	21.17
Eom	21.75	21.55	20.82	20.52	19.91	19.85	19.43	19.35	19.15	19.65	20.85	21.08

1957												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	20.70	22.35	21.10	20.04	20.23	19.30	18.90	18.32	18.12	17.47	17.55	19.00
10	20.34	22.35	21.05	20.00	19.72	19.32	18.65	18.50	17.96	17.41	17.85	19.20
15	20.48	22.08	20.55	20.27	19.75	19.08	18.60	18.20	17.95	17.35	17.55	19.35
20	20.75	21.95	20.60	20.37	19.90	18.93	18.46	18.12	17.72	17.54	17.65	19.50
25	21.90	21.70	20.60	20.16	19.80	18.86	18.35	18.20	17.62	17.25	18.05	19.55
Eom	22.23	21.25	20.45	20.25	19.43	18.82	18.27	18.16	17.66	17.35	18.65	19.60

T-27--Continued.

1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	19.60	18.93	e19.83	20.41	20.40	19.35	18.00	17.92	18.32	18.22	19.20	18.83
10	19.20	19.16	20.35	20.39	20.42	18.81	17.74	e18.30	18.27	18.02	19.20	18.88
15	19.05	19.33	20.41	20.39	20.45	18.43	17.69	18.59	18.36	18.09	18.97	19.17
20	19.00	19.42	20.41	20.40	20.42	18.13	17.93	18.48	18.09	18.27	18.90	19.07
25	18.43	19.44	20.44	20.37	20.40	17.93	17.72	18.48	18.06	18.68	19.02	19.15
Eom	18.20	19.55	20.43	20.39	20.16	17.83	17.65	18.47	18.14	19.15	19.30	19.68

1959

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	19.95	19.85	19.80	19.27	18.42	17.87	17.33	16.68	e16.60	16.37	16.70	16.75
10	19.82	19.67	19.67	18.87	18.57	17.85	17.05	17.50	e16.70	16.23	17.02	16.55
15	19.87	20.12	19.72	e18.70	18.20	17.80	16.95	17.38	16.65	16.17	17.07	16.62
20	e20.10	20.27	19.22	18.92	18.25	17.48	17.00	17.05	16.52	16.20	16.73	16.78
25	20.37	20.30	19.15	18.70	18.42	e17.20	16.76	16.88	16.38	16.17	16.72	16.75
Eom	20.14	20.17	e19.30	18.37	18.28	e17.00	16.68	16.87	16.33	16.18	17.13	16.45

1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	16.85	16.40	16.65	16.35	15.88	16.10	15.95	15.48	15.52	15.28	15.53	16.42
10	16.85	16.38	16.98	16.45	15.82	15.75	15.95	15.45	15.42	15.32	15.45	16.45
15	16.60	16.48	17.00	16.38	16.30	15.70	16.00	15.45	15.30	15.32	15.72	16.47
20	16.74	16.62	16.82	16.32	16.40	15.75	15.78	15.32	15.25	15.28	15.99	16.70
25	16.88	16.48	16.45	16.30	16.35	15.60	15.67	15.25	15.30	15.57	16.25	16.75
Eom	16.80	16.65	16.35	15.98	16.20	15.58	15.80	15.30	15.28	15.66	16.14	16.86

e Estimated.

T-28. Honolulu Board of Water Supply. Halemano Gulch, near Waialua. Lat 21°34'40", long 158°06'07". Drilled observation basal water-table well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 in, depth 60 ft, cased to 39. Lsd 35 ft above msl. MP top of casing, 38.83 ft above msl. Highest water level 12.84 above msl, Jan. 24, 1957; lowest 9.53 above msl, June 12, 1947. Records available: 1947-60. Records furnished by Honolulu Board of Water Supply.

Mean water level for the day, above msl, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	11.92	11.82	12.11	11.74	11.30	11.87	11.95	11.97	12.00	11.46	12.17	12.56
10	11.81	11.79	11.99	11.65	11.25	12.06	11.63	12.05	12.00	11.63	11.95	12.67
15	12.04	11.90	11.79	11.57	11.55	11.91	11.80	11.91	11.80	11.96	11.90	12.50
20	11.92	11.83	11.75	11.26	11.80	11.89	11.62	12.10	11.77	12.20	12.30	12.53
25	11.93	12.08	11.82	11.39	11.63	12.03	11.71	11.90	11.82	11.91	12.42	12.48
Eom	11.86	12.12	11.91	11.55	11.75	11.93	11.73	11.77	11.90	11.98	12.55	12.44

1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	12.36	12.67	.....	.....	.....	11.25	11.34	11.23	11.63	11.19	11.08	12.05
10	12.15	12.54	.....	.....	.....	11.40	11.10	11.23	11.56	11.07	11.44	12.01
15	12.33	12.60	.....	.....	.....	11.13	11.19	11.11	.....	11.15	11.36	11.98
20	12.42	12.73	.....	.....	.....	11.19	11.10	11.16	11.37	11.43	11.34	11.91
25	12.83	.....	.....	.....	11.32	11.18	11.04	11.42	11.33	11.10	.....	11.89
Eom	12.71	.....	.....	.....	11.19	11.35	11.12	11.63	11.55	10.93	11.99	11.94

1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	11.97	11.68	12.10	11.85	11.78	e10.80	.....	.....	.....	12.07	12.32	12.27
10	11.85	11.79	12.34	11.84	11.79	10.96	.....	.....	.....	11.70	12.26	12.28
15	11.60	11.88	12.18	11.72	11.83	10.69	11.45	.....	12.05	11.79	12.17	12.27
20	11.60	11.94	12.07	11.80	11.85	10.55	.....	12.04	12.02	12.02	12.14	.....
25	11.32	11.92	12.00	11.77	11.84	10.58	.....	12.16	11.81	.....	12.18	.....
Eom	11.18	11.98	11.91	11.75	11.31	10.77	11.66	12.23	11.89	.....	12.30	.....

1959

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
5	12.34	e12.20	20	11.84	11.65	11.39	11.10	11.23	11.16	e11.50	11.35	e11.60	11.19
10	12.38	12.14	11.77	11.66	11.54	11.08	10.85	e11.50	e11.40	10.99	11.72	10.88	
15	12.37	12.23	11.88	11.72	11.11	11.30	10.93	11.79	11.27	10.95	11.81	11.20	
20	12.40	12.08	11.63	11.74	11.26	11.07	11.15	e11.40	11.49	10.97	11.39	11.41	
25	12.25	12.00	11.54	11.67	11.56	10.94	11.00	e11.60	11.01	11.12	11.29	e11.40	
Eom	e12.20	11.94	11.57	11.23	11.55	11.06	e10.90	11.54	11.08	11.07	11.41	e11.30	

1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	e11.10	11.26	11.55	11.21	10.70	.....	10.93	10.44	10.78	10.85	12.01	11.96
10	11.02	10.92	11.52	11.20	e10.80	.....	10.86	10.46	10.38	11.00	11.82	11.97
15	10.93	11.21	11.58	11.00	e11.00	.....	10.40	10.62	10.51	10.93	11.94	11.84
20	11.02	11.39	11.33	11.10	.....	10.82	10.39	10.33	10.62	11.12	11.98	11.90
25	11.20	11.39	11.21	11.14	.....	10.54	10.67	10.23	10.80	11.92	11.80	11.90
Eom	11.30	11.41	11.20	10.99	.....	10.53	10.60	10.39	10.94	11.98	11.71	11.99

e Estimated.

T-41. Honolulu Board of Water Supply. Near Waipahu. Lat  $21^{\circ}22'45''$ , long  $158^{\circ}01'50''$ . Drilled observation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 in, depth 113 ft, cased to 92. Lsd 84 ft above msl. MP top of casing, 83.93 ft above msl. Highest water level 26.55 above msl, Feb. 2, 1957; lowest 14.78 above msl, Sept. 22, 1960. Records available: 1949-60. Records furnished by Honolulu Board of Water Supply.

Mean water level for the day, above msl, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	24.70	25.25	23.70	21.50	21.45	20.65	21.10	20.10	20.20	19.30	21.40	24.27
10	24.44	24.95	23.25	21.65	20.62	21.08	20.45	19.75	19.90	19.42	21.00	24.45
15	24.82	25.41	22.20	21.85	20.90	20.60	20.55	19.85	19.65	20.70	19.85	24.52
20	24.96	25.35	22.10	20.90	21.10	20.55	19.85	20.25	19.30	21.10	22.75	23.40
25	24.83	24.40	22.85	21.10	20.50	20.85	19.93	19.85	19.35	20.25	23.60	24.10
Eom	25.21	23.30	23.00	21.70	20.40	20.70	19.85	19.70	19.65	20.50	23.91	23.96
1957												
5	22.12	26.40	22.50	20.80	21.60	19.90	19.90	18.55	18.52	17.43	18.29	21.95
10	21.72	26.36	23.35	20.75	20.45	20.00	19.10	18.55	18.16	17.30	19.40	22.20
15	22.05	24.25	21.60	21.40	20.40	19.75	19.00	18.42	18.12	17.28	17.80	22.50
20	23.20	23.80	21.60	22.50	20.85	19.35	18.80	18.30	17.74	17.97	17.90	22.60
25	25.85	23.85	22.25	20.90	20.75	19.25	18.60	18.35	17.62	17.71	20.65	22.50
Eom	26.50	23.55	22.50	21.00	19.95	19.45	18.55	18.24	17.63	17.76	21.10	21.80
1958												
5	22.30	21.38	22.76	23.75	23.78	20.06	18.82	18.45	19.30	19.85	21.83	19.73
10	20.45	21.96	23.78	23.77	23.79	19.29	18.12	e19.10	19.24	18.50	20.90	e20.00
15	20.17	22.38	23.89	23.74	23.74	18.84	18.26	20.00	e18.90	18.60	20.40	e19.80
20	20.40	22.43	23.88	23.74	23.74	18.49	18.62	19.42	19.35	19.30	19.63	20.60
25	19.25	22.46	23.88	23.72	23.75	18.26	18.18	19.57	e19.80	20.85	20.05	21.00
Eom	18.42	22.59	23.81	23.77	22.00	18.14	e18.20	e19.70	e19.80	21.83	21.50	21.77
1959												
5	22.32	21.30	21.05	21.05	19.23	18.35	18.20	16.83	16.85	16.40	17.45	17.90
10	22.00	21.52	20.90	19.40	20.30	18.40	17.30	19.75	17.05	16.28	18.87	16.95
15	22.55	23.05	e21.00	19.60	18.78	18.65	17.13	18.28	16.75	e16.00	18.95	17.10
20	e23.60	23.30	19.87	20.20	18.90	18.07	17.18	17.23	16.75	e15.90	17.25	18.15
25	23.85	22.40	19.97	19.95	19.70	17.55	16.85	17.13	16.33	16.45	17.45	17.85
Eom	22.62	22.40	20.25	18.85	19.82	17.60	16.70	17.12	16.28	16.42	18.60	17.20
1960												
5	17.65	16.60	17.82	16.98	15.92	16.60	16.42	15.40	16.10	14.88	16.00	16.86
10	18.35	16.45	18.40	16.68	16.08	15.75	16.25	15.30	15.22	15.00	15.28	17.42
15	17.05	17.35	18.35	17.55	17.70	15.78	17.82	15.30	14.92	15.00	15.77	16.72
20	17.35	17.70	18.40	16.75	16.75	e15.50	15.92	15.10	14.88	14.85	16.85	.....
25	17.75	16.88	16.85	16.77	16.48	15.68	15.48	14.95	15.08	15.18	17.75	.....
Eom	18.30	17.80	16.87	16.35	16.42	15.90	16.35	15.00	14.88	15.88	16.38	e17.60

e Estimated.

T-44. Honolulu Board of Water Supply. 16th Ave. and Claudine St., Honolulu. Lat  $21^{\circ}17'17''$ , long  $157^{\circ}47'39''$ . Drilled observation basal water-table well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 1 in, depth 171 ft, cased to 168, perforated 158, 163, 167. Lsd 152.04 ft above msl. MP top of casing, 151.90 ft above msl. Highest water level 11.07 above msl, Aug. 12, 1937; lowest 8.12 above msl, July 8, 1947. Records available: 1936-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 3, 1956	9.94	June 19, 1956	9.53	Nov. 13, 1956	9.71	Apr. 8, 1957	9.59
9	9.93	25	9.58	19	9.75	15	9.59
16	9.93	July 2	9.56	26	9.81	22	9.66
23	9.94	9	9.60	Dec. 3	9.87	29	9.66
30	9.93	16	9.55	10	9.85	May 6	9.63
Feb. 6	9.87	23	9.55	17	9.83	13	9.59
13	9.78	30	9.56	26	9.80	20	9.63
20	9.84	Aug. 6	9.59	Jan. 2, 1957	9.79	27	9.58
27	9.77	13	9.53	7	9.76	June 3	9.56
Mar. 5	9.67	20	9.59	14	9.80	10	9.54
12	9.85	27	9.37	21	9.86	17	9.55
19	9.80	Sept. 4	9.62	28	10.06	24	9.46
27	9.84	10	9.61	Feb. 4	10.01	July 1	9.45
Apr. 9	9.60	17	9.66	11	10.02	8	9.48
30	9.41	24	9.65	18	10.00	15	9.45
May 7	9.42	Oct. 1	9.68	25	10.00	22	9.53
14	9.43	8	9.65	Mar. 4	9.94	29	9.53
21	9.47	19	9.67	11	9.91	Aug. 5	9.54
28	9.39	22	9.68	18	9.85	12	9.56
June 4	9.42	29	9.70	25	9.84	19	9.56
12	9.63	Nov. 5	9.69	Apr. 1	9.62	26	9.56

T-44--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 3, 1957	9.60	July 30, 1958	9.56	May 20, 1959	9.90	Mar. 23, 1960	9.19
9	9.55	Aug. 6	9.52	27	10.18	30	9.17
23	9.52	13	9.57	31	10.02	Apr. 6	9.13
30	9.55	20	9.64	June 3	9.88	12	9.07
Oct. 7	9.49	27	9.72	9	9.84	20	9.05
14	9.49	Sept. 3	9.71	17	9.82	28	8.97
23	9.45	10	9.70	24	9.80	29	9.04
28	9.42	17	9.71	30	9.89	May 4	9.12
Nov. 4	9.41	24	9.74	July 8	9.80	11	9.14
12	9.41	30	10.16	15	9.84	18	9.00
18	9.47	Oct. 8	9.75	22	9.79	25	8.99
25	9.50	15	10.34	29	9.71	31	8.98
Dec. 2	9.49	22	10.38	Aug. 5	9.79	June 8	8.96
9	9.45	29	9.84	12	9.85	15	8.75
16	9.44	31	9.79	18	9.88	22	8.96
23	9.45	Nov. 5	9.90	25	9.90	30	8.92
30	9.44	12	9.92	31	9.93	July 6	8.95
Jan. 6, 1958	9.45	19	9.85	Sept. 9	10.00	13	8.89
13	9.44	26	9.93	16	9.89	20	8.90
20	9.42	Dec. 3	9.97	23	9.90	27	8.86
27	9.40	10	9.96	30	9.84	Aug. 1	8.89
Feb. 3	9.21	17	10.00	Oct. 7	9.81	3	8.88
10	9.24	31	10.05	14	9.77	10	8.83
18	9.32	Jan. 7, 1959	10.06	21	9.75	17	8.81
24	9.29	14	9.97	30	9.70	24	8.82
Mar. 3	9.40	21	10.10	Nov. 4	9.74	31	8.79
10	9.69	28	10.07	10	9.70	Sept. 7	8.79
19	9.62	30	10.07	18	9.64	14	8.80
25	9.51	Feb. 4	10.02	22	9.52	12	8.88
Apr. 2	9.55	11	10.05	24	9.38	21	8.72
9	9.50	18	10.04	30	9.68	28	8.84
17	9.42	25	10.03	Dec. 9	9.56	30	8.82
23	9.52	27	10.02	16	9.50	Oct. 5	8.83
30	9.43	Mar. 4	10.02	22	9.52	19	8.92
May 7	9.40	11	9.97	31	9.57	19	8.92
14	9.43	18	9.93	Jan. 6, 1960	9.41	26	8.94
21	9.40	25	9.81	13	9.42	31	8.96
28	9.40	Apr. 1	9.94	20	9.38	Nov. 2	8.92
June 4	9.28	8	10.13	27	9.35	9	8.91
10	9.41	15	10.09	Feb. 1	9.30	16	8.80
18	9.37	22	10.03	10	9.35	23	8.79
25	9.41	29	10.19	17	9.28	30	8.85
July 2	9.45	May 1	9.99	24	9.23	Dec. 7	9.00
9	9.41	6	10.80	Mar. 1	9.20	14	9.24
16	9.48	13	10.00	9	9.28	21	9.10
23	9.53			16	9.23	28	8.96

T-45. Honolulu Board of Water Supply. Near North Halawa Valley. Lat 21°22'34", long 157°55'26". Drilled observation basal water-table well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 12 in, depth 85 ft, cased to 59. Lsd 57 ft above msl. MP top of casing, 58.06 ft above msl. Highest water level 24.08 above msl, Feb. 12, 1957; lowest 17.27 above msl, Aug. 27, 1960. Records available: 1954-60.

Mean water level for the day, above msl, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	23.11	23.52	23.40	22.70	22.34	21.95	21.82	21.62	21.20	20.92	21.68	22.91
10	22.96	23.57	23.02	22.62	22.02	22.25	21.60	21.40	21.20	20.93	21.56	23.02
15	23.17	23.62	22.64	22.50	21.95	22.08	21.78	21.34	21.02	21.40	21.26	23.13
20	23.18	23.70	22.58	22.08	22.21	21.98	21.56	21.30	.....	21.58	22.06	23.14
25	23.22	23.62	22.80	22.18	21.93	22.10	21.56	21.29	.....	21.38	22.48	23.15
Eom	23.42	23.54	22.86	22.40	21.92	21.96	21.52	21.06	21.21	21.55	22.73	23.05

1957

5	22.70	23.98	22.90	22.04	22.22	21.24	20.84	20.38	20.00	19.50	19.45	20.94
10	22.21	24.06	23.04	22.05	21.70	21.23	20.58	20.48	19.94	19.47	19.88	21.12
15	22.54	23.96	22.42	22.40	21.64	21.10	20.50	20.05	19.92	19.50	19.54	21.24
20	22.77	23.90	22.50	22.44	21.92	20.93	20.40	20.10	19.69	19.48	19.56	21.36
25	23.66	23.50	22.50	22.18	21.72	20.78	20.30	20.20	19.59	19.34	20.38	21.46
Eom	23.90	23.06	22.50	22.22	21.34	20.74	20.26	20.20	19.60	19.30	20.70	21.50

## T-45--Continued.

1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	21.56	21.10	e21.84	22.44	22.42	21.25	e19.94	20.33	20.36	20.27	e21.00	20.88
10	21.18	21.13	22.36	22.46	22.52	20.80	19.90	20.64	20.34	20.19	21.22	20.99
15	21.12	21.26	22.41	22.49	22.53	20.58	19.84	20.76	20.46	20.14	21.11	21.32
20	20.80	21.36	22.40	22.49	22.51	20.27	20.24	20.69	20.26	20.41	20.98	21.10
25	20.40	21.44	22.39	22.45	22.48	20.08	20.09	20.70	20.27	20.71	21.05	21.00
Eom	20.13	21.55	22.37	22.42	22.36	20.10	19.92	20.58	20.25	21.12	21.31	21.50

1959

5	21.76	21.77	21.72	21.51	20.50	20.16	19.58	18.80	18.84	18.51	19.11	19.05
10	21.74	21.74	21.66	21.18	20.72	20.05	19.23	19.66	18.92	18.49	e19.10	18.77
15	21.52	22.16	21.96	21.08	20.09	19.84	19.11	19.42	18.86	18.39	18.96	18.83
20	22.04	22.23	21.41	21.18	20.02	19.68	19.12	19.10	18.59	18.42	18.99	19.16
25	22.28	22.39	21.19	20.96	20.41	19.39	19.00	19.02	18.61	18.43	18.75	19.02
Eom	22.10	22.33	21.23	20.58	20.51	19.35	18.81	19.04	18.47	18.42	19.10	18.90

1960

5	18.93	18.52	18.86	18.44	18.11	18.44	18.25	17.55	17.46	17.59	17.80	18.64
10	19.24	18.60	19.11	18.66	18.07	17.97	18.29	17.60	17.63	17.60	17.84	18.80
15	18.83	18.67	18.99	18.60	18.73	17.92	18.14	17.49	17.58	17.59	18.05	18.89
20	19.04	18.97	19.11	18.40	18.82	17.94	18.04	17.36	17.47	17.56	18.32	19.10
25	19.14	18.69	18.58	18.46	18.77	18.03	17.92	17.42	17.46	17.86	18.47	19.08
Eom	19.12	18.83	18.44	18.30	18.63	17.94	17.74	17.42	17.45	17.84	18.51	19.20

e Estimated.

T-48A. Honolulu Board of Water Supply. Formerly Honolulu Suburban Water System. At head of Maunawili Valley. Lat 21°20'42", long 157°47'14". Drilled observation high-level water-table well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam  $\frac{3}{4}$  in, depth 1, 230 ft, cased to 1,120. Lsd 1,272 ft above msl. MP top of  $\frac{3}{4}$ -in nipple on top of  $\frac{3}{4}$ -in pipe, 1,273.56 ft above msl. Highest water level 685.3 above msl, June 26, 1954; lowest 612.91 above msl, Apr. 7, 1960. Records available: 1953-56, 1960. No measurement made in 1957-59. Apr. 26, 1956, 624.0; Aug. 23, 623.1; Apr. 7, 1960, 612.91; Aug. 3, 617.56.

T-49. Honolulu Board of Water Supply. Formerly Honolulu Suburban Water System. At head of Maunawili Valley. Lat 21°20'48", long 157°46'57". Drilled observation high-level water-table well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 1 in, depth 805 ft, cased to 805, perforated 784-805. Lsd 777 ft above msl. MP top of 1-in pipe, 776.84 ft above msl. Highest water level 635.9 above msl, Mar. 6, 1954; lowest 625.17 above msl, Dec. 23, 1960. Records available: 1953-56, 1960. No measurement made in 1957-59. Apr. 26, 1956, 630.3; Aug. 23, 628.6; Mar. 29, 1960, 627.0; Apr. 7, 626.9; Apr. 29, 626.97; Aug. 3, 626.54; Dec. 23, 625.17.

T-52. Honolulu Board of Water Supply. Waimalu Valley, near Pearl Harbor. Lat 21°24'16", long 157°55'42". Drilled observation basal water-table well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 16 in, depth 321 ft, cased to 180, perforated 170-180. Lsd 168 ft above msl. MP top of casing, 169.13 ft above msl. Highest water level 24.64 above msl, Feb. 12, 1957; lowest 17.55 above msl, Sept. 23, 1960. Records available: 1956-60. Recording gage installed August 1956 by Honolulu Board of Water Supply.

Mean water level for the day, above msl, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	.....	.....	.....	.....	.....	.....	.....	22.03	21.58	22.21	23.35
10	.....	.....	.....	.....	.....	.....	.....	.....	21.96	21.61	22.01	23.41
15	.....	.....	.....	.....	.....	.....	.....	.....	21.81	21.85	.....	23.55
20	.....	.....	.....	.....	.....	.....	.....	.....	21.76	22.04	22.37	23.58
25	.....	.....	.....	.....	.....	.....	.....	.....	21.98	21.70	22.02	22.83
Eom	.....	.....	.....	.....	.....	.....	.....	.....	21.92	21.74	22.14	23.08

1957

5	23.25	24.48	23.70	22.63	22.71	21.88	21.24	20.76	20.50	19.86	19.70	20.99
10	22.89	24.61	23.58	22.59	22.32	21.81	21.10	20.80	20.41	19.77	19.86	21.21
15	23.01	24.54	23.18	22.68	22.28	21.61	20.98	20.58	20.24	19.77	19.81	21.33
20	23.12	24.51	23.19	22.82	22.38	21.44	20.89	20.55	20.07	19.65	19.85	21.48
25	23.85	24.20	23.17	22.73	22.17	21.34	20.82	20.56	.....	19.60	20.37	21.58
Eom	24.32	23.90	22.72	22.80	21.98	21.20	20.75	20.51	19.99	19.58	20.75	21.65

1958

5	21.74	20.92	21.71	22.65	22.72	21.98	20.30	20.41	20.74	20.60	21.51	21.42
10	21.51	21.14	22.35	22.66	22.75	21.45	20.27	20.68	20.74	20.60	21.61	21.46
15	21.35	21.36	22.50	22.67	22.78	21.09	20.18	20.95	20.79	20.65	21.55	21.71
20	21.18	21.46	22.56	22.70	22.79	20.75	20.34	20.92	20.62	20.78	21.55	21.60
25	20.82	21.55	22.59	22.68	22.76	20.52	20.23	20.86	20.67	21.02	21.61	21.51
Eom	20.44	21.62	22.63	22.65	22.70	20.39	e20.10	20.81	20.68	21.39	21.64	22.06

e Estimated.

T-52--Continued.

1959

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	22.28	22.33	22.36	21.80	e21.00	20.52	19.76	19.14	19.11	18.75	19.00	19.12
10	22.26	22.24	22.24	21.57	21.14	20.44	19.57	e19.68	19.19	18.66	19.14	18.98
15	22.29	22.44	22.28	21.49	e20.90	20.32	19.47	19.68	19.12	18.60	19.15	19.01
20	22.56	22.59	21.92	21.59	e20.70	20.03	19.39	19.45	18.96	18.57	19.16	19.09
25	22.63	22.76	21.74	21.38	20.78	19.83	19.24	19.33	18.85	18.54	19.09	19.03
Eom	22.49	22.69	21.73	21.18	20.72	19.72	19.15	19.26	18.78	18.53	19.30	19.05

1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	19.12	18.77	18.84	18.60	18.24	18.37	18.18	17.81	17.67	17.64	17.82	18.30
10	19.14	18.74	19.05	18.56	18.16	18.17	18.23	17.80	17.70	17.63	17.79	18.44
15	18.92	18.73	19.15	18.60	18.46	18.09	18.18	17.74	17.72	17.62	18.01	18.57
20	19.08	18.94	19.04	18.56	18.74	18.06	18.15	17.69	17.62	17.62	.....	18.72
25	19.15	18.69	18.78	18.55	18.74	17.97	18.01	17.59	17.57	17.80	.....	18.91
Eom	19.08	18.76	18.61	18.31	18.62	17.92	17.95	17.63	17.58	17.88	18.15	19.09

e Estimated.

T-69. Honolulu Board of Water Supply. Kapalama Elementary School. Lat  $21^{\circ}23'35''$ , long  $157^{\circ}56'55''$ . Drilled observation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 8 in, depth 283 ft, cased to 233. Lsd 81 ft above msl. MP top of casing, 81.82 ft above msl. Highest water level 24.56 above msl, Dec. 27, 1959; lowest 21.85 above msl, Aug. 26, 1960. Records available: 1959-60. Recording gage installed Nov. 20, 1959. Records furnished by Honolulu Board of Water Supply.

Mean water level for the day, above msl, from recorder graph, 1959

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.35
10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.28
15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.42
20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.45
25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.30	24.54
Eom	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.48	24.42

1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	24.48	24.11	24.28	23.95	23.53	23.50	23.09	22.10	22.21	22.54	23.01	23.63
10	24.53	24.11	24.28	24.00	23.50	23.26	22.80	22.00	22.22	22.69	23.19	23.64
15	24.35	24.19	24.34	23.85	23.74	23.16	22.70	22.06	22.30	22.69	23.10	23.70
20	24.39	24.15	24.31	23.93	23.62	23.10	22.58	21.87	22.40	22.74	23.36	23.90
25	24.40	24.17	24.03	23.92	23.68	23.00	22.47	21.90	22.40	22.90	23.42	23.88
Eom	24.36	24.24	23.90	23.71	23.70	22.98	22.28	21.99	22.47	23.03	23.42	24.25

T-75. Honolulu Board of Water Supply. Waimalu. Lat  $21^{\circ}20'15''$ , long  $157^{\circ}52'15''$ . Drilled observation artesian basal-water well in basalt of Koolau Volcanic Series, Pliocene (?) age, diam 6 in, depth 250 ft, cased to 75. Lsd 26 ft above msl. MP top of casing, 27.35 ft above msl. Highest water level 18.19 above msl, Dec. 26, 1959; lowest 16.20 above msl, Aug. 22, 1960. Records available: 1959-60. Recording gage installed Oct. 14, 1959. Records furnished by Honolulu Board of Water Supply.

Mean water level for the day, above msl, from recorder graph, 1959

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.89	17.86
10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.93	17.59
15	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.24	17.91	17.62
20	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.20	17.83	17.90
25	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.24	e17.60	18.05
Eom	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.27	e17.70	17.78

1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	17.75	17.50	17.75	17.21	16.82	17.17	16.94	16.46	16.48	16.43	16.64	17.54
10	17.99	17.40	17.79	17.40	16.80	16.83	17.12	16.49	16.52	16.43	16.58	17.56
15	17.67	17.45	17.78	17.47	17.57	16.77	16.92	16.37	16.45	16.43	16.85	17.81
20	17.75	17.83	17.75	17.18	17.77	16.77	16.77	16.25	16.32	16.43	17.05	17.91
25	17.86	17.42	17.37	17.18	17.75	16.75	16.69	16.22	16.36	16.64	17.35	18.06
Eom	17.92	17.55	17.20	17.01	17.34	16.62	16.66	16.35	16.36	16.71	17.14	18.20

e Estimated.

Shaft 4. U. S. Army. Near Wahiawa. Lat  $21^{\circ}29'30''$ , long  $158^{\circ}01'45''$ . Dug domestic high-level water-table well in basalt of Koolau Volcanic Series, Pliocene (?) age, size 8 x 8 ft, vertical depth of 30-degree inclined shaft 563 ft, lined with concrete in upper part, pump chamber at bottom of shaft. Lsd 850 ft above msl. Highest water level 284.13 above msl, Sept. 4, 1937; lowest 273.17 above msl, Mar. 11, 1946. Records available: 1936-60.

## Shaft 4--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26, 1956	280.26	Oct. 4, 1957	281.08	Nov. 14, 1958	279.58	Dec. 12, 1959	277.40
29	280.18	6	281.06	Dec. 4	279.72	16	277.37
Feb. 10	280.17	12	280.89	7	279.63	17	277.37
19	280.07	Nov. 2	280.59	27	279.53	18	277.35
Mar. 11	280.01	8	280.42	30	279.58	27	277.20
19	280.01	11	280.38	31	279.58	29	277.24
Apr. 1	280.28	20	280.33	Jan. 1, 1959	279.55	Jan. 1, 1960	277.18
19	280.67	21	280.29	8	279.62	13	277.03
23	280.68	29	280.18	9	279.57	21	276.93
30	280.90	30	280.25	14	279.58	29	276.78
May 1	280.96	Dec. 1	280.30	15	279.50	31	276.76
2	280.96	2	280.26	18	279.88	Feb. 16	276.61
10	281.07	4	280.08	20	279.53	17	276.63
15	281.20	6	280.98	21	279.59	18	276.56
24	281.33	8	280.88	22	279.57	21	276.48
28	281.48	9	280.98	25	279.51	25	276.54
29	281.56	13	279.93	26	279.54	Mar. 2	276.50
July 1	281.97	22	279.69	Feb. 1	279.47	3	276.56
3	281.98	25	279.61	2	279.52	4	276.51
11	282.07	27	279.64	5	279.60	5	276.48
12	282.08	29	279.65	8	279.55	6	276.50
13	282.08	Jan. 2, 1958	279.52	12	279.64	7	276.50
14	282.05	3	279.53	15	279.47	8	276.40
15	282.05	12	279.40	18	279.40	9	276.39
17	282.13	16	279.35	Mar. 10	279.39	10	276.45
29	282.19	26	279.23	11	279.39	11	276.48
30	282.24	27	279.23	13	279.42	12	276.45
Aug. 9	282.21	Feb. 1	279.15	Apr. 7	279.31	13	276.40
22	282.18	2	279.22	8	279.30	16	276.37
29	282.17	Mar. 1	279.10	15	279.35	19	276.29
Sept. 20	282.10	2	279.04	20	279.29	20	276.31
Oct. 21	281.82	6	279.07	22	279.28	21	276.34
31	281.57	20	278.84	24	279.22	22	276.34
Nov. 16	281.42	Apr. 1	278.74	26	279.23	24	276.32
Dec. 1	281.35	13	278.56	28	279.21	27	276.30
3	281.26	21	278.67	30	279.25	31	276.24
4	281.14	22	278.59	May 1	279.26	Apr. 1	276.23
5	281.08	24	278.63	10	279.24	4	276.16
26	280.89	25	278.66	16	279.19	5	276.21
Jan. 15, 1957	280.62	May 1	278.62	June 2	279.09	7	276.18
31	280.29	3	278.65	5	279.03	8	276.09
Feb. 7	280.32	7	278.65	18	279.02	10	276.22
19	280.37	9	278.69	19	278.99	13	276.14
26	280.37	10	278.65	July 1	278.95	15	276.10
27	280.37	17	278.79	6	278.87	22	276.10
Mar. 3	280.43	18	278.76	27	278.76	30	276.00
14	280.43	19	278.77	29	278.75	May 1	275.97
20	280.58	20	278.71	30	278.76	3	275.90
Apr. 16	281.03	21	278.77	Aug. 5	278.76	5	275.95
17	280.99	22	278.77	6	278.78	16	275.92
30	281.22	25	278.82	9	278.72	19	275.94
May 4	281.28	June 1	278.87	25	278.62	June 22	275.72
9	281.37	July 1	279.08	Sept. 3	278.51	23	275.75
14	281.41	9	279.14	5	278.54	24	275.73
15	281.41	13	279.16	6	278.59	28	275.71
June 1	281.62	18	279.22	9	278.49	July 2	275.66
July 1	281.72	19	279.26	11	278.48	11	275.66
Aug. 1	281.64	21	279.29	13	278.38	14	275.64
7	281.55	Aug. 3	279.37	21	278.34	16	275.58
15	281.53	5	279.45	Oct. 9	278.14	Aug. 31	275.29
17	281.43	17	279.58	23	277.93	Sept. 22	275.21
18	281.43	21	279.62	28	277.93	28	275.22
19	281.45	23	279.57	Nov. 3	277.91	Oct. 11	275.20
Sept. 7	281.28	Sept. 26	279.79	11	277.91	19	275.16
12	281.26	Oct. 17	279.69	12	277.87	25	275.14
22	281.09	21	279.70	16	277.76	26	275.18
26	281.04	24	279.68	24	277.62	Dec. 2	275.06
28	281.10	27	279.75	27	277.57	6	275.10
29	281.18	Nov. 1	279.60	29	277.60	25	275.11
Oct. 1	281.04	4	279.72	Dec. 10	277.38	26	275.14

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## NEVADA

By R. A. Lyman, Jr.

The observation-well program in Nevada was continued during the period 1956 through 1960 in cooperation with the Department of Conservation and Natural Resources, State of Nevada. Figure 5 shows the location of observation wells included in this report.

### Well-Numbering System

The number assigned to a well is both an identification and a location number. It is based on the Mount Diablo base line and meridian network of surveys established by the General Land Office (now known as the U. S. Bureau of Land Management). A typical well number is composed of three segments. The first segment indicates the township north of the Mount Diablo base line; if the township is south of the base line, the number is preceded by the letter "S." The second segment, separated from the first by a slant, indicates the range east of the Mount Diablo meridian. The third segment, separated from the second by a hyphen, indicates the section and the location of the well within the section. Lowercase letters--a, b, c, and d--assigned in a counter-clockwise direction, designate the northeast, northwest, southwest, and southeast quarter sections, quarter-quarter sections, and quarter-quarter-quarter sections (160-acre, 40-acre, and 10-acre tracts). If two or more wells are in the subdivision, consecutive numbers are assigned in the order in which the well data are recorded. Thus, well number S10/60-4dabi designates the first well recorded in the NW<sup>1</sup>/4NE<sup>1</sup>/4SE<sup>1</sup>/4 sec. 4, T. 10 S., R. 60 E.

### Well Descriptions and Water-Level Measurements

Water levels are reported in feet below land-surface datum unless otherwise indicated. When some measurements in a table are above and others below the plane of reference, a plus (+) or minus (-) sign is placed immediately before the first entry in each column. Measurements between plus signs are above the plane of reference, and those between minus signs are below.

#### Churchill County

##### Dixie Valley

21/34-27dc1. Gregory Homestead. Drilled unused well, diam 11 in, depth 114 ft, cased. MP top of casing, 0.50 ft above lsd. Highest water level 28.04 below lsd, June 7, 1956; lowest 32.62 below lsd, Aug. 21, 1951. Records available: 1951, 1955-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 21, 1951	32.62	Mar. 7, 1957	28.06	May 6, 1958	28.31	Mar. 18, 1959	28.46
Jan. 3, 1955	28.08	May 15	28.09	July 16	28.32	May 11	28.30
19	28.66	July 12	28.20	Sept. 25	28.54	Aug. 4	28.50
June 7, 1956	28.04	Sept. 4	28.29	Nov. 24	28.48	June 22, 1960	29.03
Nov. 26	28.09	Nov. 19	28.31	Jan. 14, 1959	28.52	Sept. 26	29.10
Jan. 16, 1957	28.15	Jan. 6, 1958	28.34				

21/35-19ac2. Howard Turley. Drilled irrigation well, diam 14 in, depth 173 ft, cased to 155. MP top of casing, at lsd. Highest water level flowing, June 22, Sept. 26, 1960; lowest 4.39 below lsd, Oct. 28, 1955. Records available: 1951, 1955-60.

May 1, 1951	3.36	June 25, 1956	2.70	Nov. 19, 1957	2.90	Mar. 18, 1959	1.60
Jan. 26, 1955	1.60	Nov. 26	2.99	Jan. 6, 1958	2.37	May 11	.34
Mar. 18	1.70	Jan. 16, 1957	3.12	May 6	1.42	Aug. 4	.46
Apr. 18	3.08	Mar. 7	2.64	July 16	2.38	Dec. 16	.07
June 13	3.12	May 15	2.86	Sept. 25	3.26	June 22, 1960	(j)
Oct. 28	4.39	July 12	3.02	Nov. 24	2.83	Sept. 26	(j)
Jan. 19, 1956	3.25	Sept. 4	3.44	Jan. 14, 1959	2.39		

j Flowing.

21/35-31d1. C. B. Stark. Drilled stock well, diam 8 in, depth 50 ft, cased. MP top of casing collar, 4.00 ft above lsd. Highest water level 31.72 below lsd, Sept. 26, 1960; lowest 34.92 below lsd, Dec. 11, 1951. Records available: 1951, 1955-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Dec. 11, 1951	34.92	June 7, 1956	34.03	Nov. 19, 1957	33.74	Jan. 14, 1959	33.62
Jan. 19, 1955	34.44	Nov. 26	33.92	Jan. 6, 1958	33.74	May 11	33.54
Mar. 18	34.37	Jan. 16, 1957	33.94	May 6	33.67	Aug. 4	33.71
Apr. 13	34.35	May 15	33.84	July 16	33.66	June 22, 1960	33.59
July 19	34.39	July 12	33.78	Sept. 25	33.65	Sept. 26	31.72
Oct. 28	34.27	Sept. 4	33.75	Nov. 24	33.60		

#### Fairview Valley

16/33-2dc1. C. B. Stark. Drilled stock well, diam 8 in, depth 441 ft, cased. Lsd about 4,160 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 216.68 below lsd, Jan. 13, 1955; lowest 221.65 below lsd, June 22, 1960. Records available: 1950, 1955-60.

June 5, 1950	220.07	June 25, 1956	217.85	Sept. 4, 1957	217.98	Jan. 14, 1959	218.32
Jan. 13, 1955	216.68	Nov. 26	217.99	Nov. 19	218.17	May 11	218.17
Feb. 18	217.19	Jan. 16, 1957	218.25	Jan. 6, 1958	218.28	Dec. 16	218.26
Mar. 18	217.49	Mar. 7	217.99	May 6	218.07	Mar. 7, 1960	218.25
Apr. 22	217.42	May 15	217.99	July 16	217.88	June 22	221.65
Oct. 27	217.87	July 14	218.23	Sept. 25	218.30		

17/35-32dc1. U. S. Government. Drilled unused well, diam 6 in, depth 99 ft, cased. Lsd about 4,470 ft above msl. MP top of casing, 0.40 ft above lsd. Highest water level 45.75 below lsd, Oct. 27, 1955; lowest 60.38 below lsd, Jan. 26, 1955. Records available: 1946-47, 1951, 1955-60.

Jan. 20, 1956	45.87	Mar. 6, 1957	50.38	May 6, 1958	50.83	May 11, 1959	51.14
June 7	47.45	May 15	49.90	July 15	51.03	Aug. 4	51.24
Aug. 27	48.06	July 11	49.87	Sept. 25	51.28	Dec. 16	51.55
Oct. 13	48.47	Sept. 4	49.86	Nov. 24	51.39	Mar. 7, 1960	51.83
Nov. 26	48.84	Nov. 19	49.88	Jan. 14, 1959	51.63	June 22	52.10
Jan. 16, 1957	49.89	Jan. 6, 1958	49.87	Mar. 18	51.60		

#### Clark County

##### Indian Spring Valley

S16/56-9bc2. Tim Harnedy. Drilled domestic and irrigation well in alluvium of Quaternary age, diam 8 in, depth 582 ft, cased. MP top south side of casing, 0.20 ft above lsd. Highest water level 2.20 below lsd, Feb. 18, 1959; lowest 6.70 below lsd, Aug. 5, 1949. Records available: 1946-51, 1955-60. Feb. 10, 1956, 3.34; Feb. 7, 1957, 3.37; Sept. 1, 5.39; Feb. 12, 1958, 3.15; Feb. 18, 1959, 2.20; Feb. 14, 1960, 3.60.

##### Las Vegas Valley

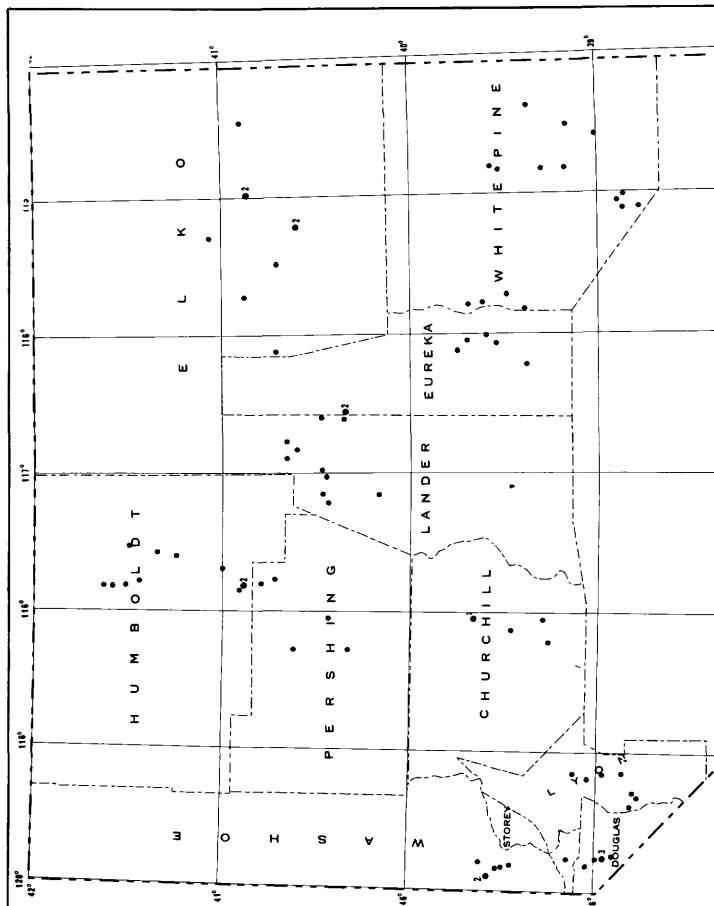
S17/59-20bc1. Formerly S17/59-16bc1. U. S. Bureau of Land Management. Drilled stock well in alluvium of Quaternary age, diam 6 in, depth 300 ft, cased. MP top of casing, 0.30 ft above lsd. Highest water level 26.44 below lsd, June 20, 1958; lowest 31.01 below lsd, Sept. 12, 1944. Records available: 1944-60.

Jan. 24, 1956	28.39	Feb. 5, 1957	28.08	June 20, 1958	26.44	Dec. 3, 1959	28.35
Apr. 10	28.95	Apr. 10	27.43	Sept. 3	27.30	Feb. 3, 1960	27.71
June 27	28.19	Aug. 28	26.89	Dec. 3	27.18	May 6	29.23
Sept. 28	28.86	Nov. 20	26.80	Feb. 18, 1959	26.48	Aug. 4	27.44
Nov. 16	28.68	Feb. 12, 1958	27.71	Sept. 15	28.25	Dec. 9	27.44

S19/60-9bcc1. P. J. Goumond (State Engineer No. 427). Drilled unused artesian well, diam 10 in, depth 830 ft, cased to 140. MP top of casing, 0.50 ft above lsd. Highest water level 43.65 below lsd, June 3, 1944; lowest 99.78 below lsd, Aug. 18, 1959. Records available: 1944-60.

##### Water level at noon, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	86.06	86.59	87.59	89.24	.....	90.12	91.65	93.48	94.38	95.22	92.98	91.76
10	87.08	89.21	87.13	.....	89.84	91.71	92.30	93.71	94.57	95.35	.....	92.24
15	88.66	89.57	87.30	89.86	88.26	91.99	93.24	93.78	94.20	94.29	92.69	92.10
20	87.30	87.51	88.60	90.61	89.74	92.28	91.99	93.97	94.78	93.45	91.80	91.74
25	86.70	87.90	87.67	91.09	89.28	92.63	90.70	93.42	95.00	93.04	92.33	91.99
Eom	87.39	87.49	88.80	90.16	89.27	92.73	92.17	94.22	95.15	94.17	93.01	91.69



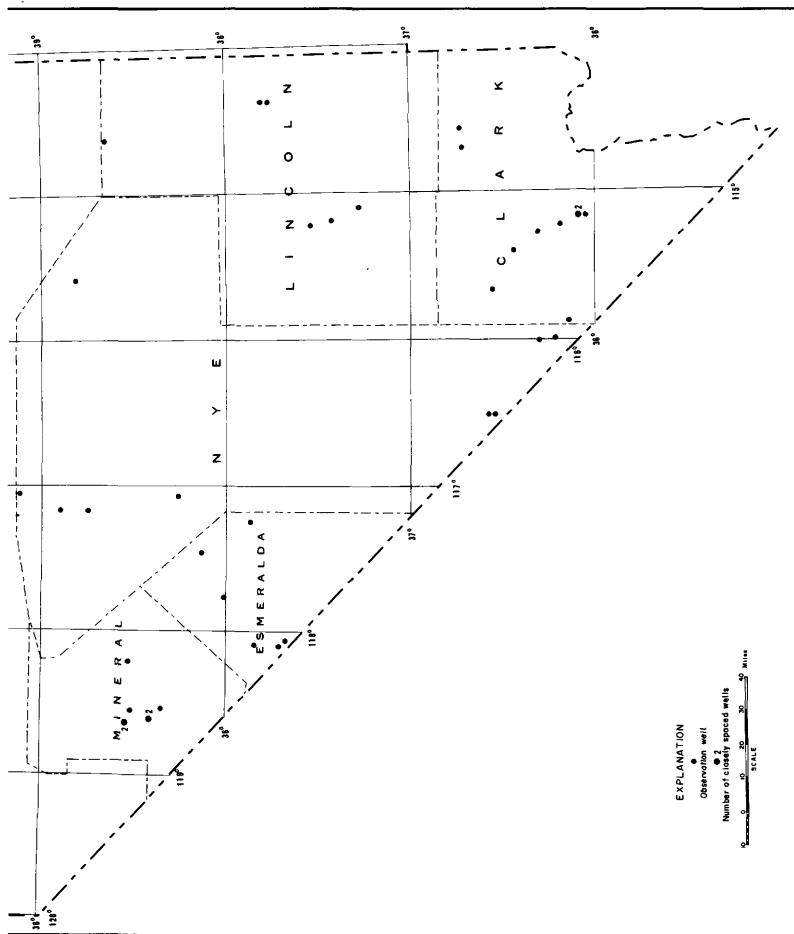


Figure 5.--Location of observation wells in Nevada, 1956-60.

S19/60-9bcc1--Continued.

1957												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	91.82	89.59	91.02	91.34	95.58	96.20	96.64	96.94	97.52	97.85	94.29	92.43
10	....	89.29	91.16	93.24	....	96.86	97.50	97.30	98.40	95.42	93.92	92.30
15	91.02	91.18	91.33	94.18	96.08	96.95	96.66	97.29	98.55	95.88	93.60	92.09
20	91.33	91.54	90.95	94.27	95.11	97.00	97.76	97.24	98.74	95.72	93.35	91.99
25	90.24	89.86	91.02	94.38	96.21	97.30	97.86	97.07	97.97	95.43	92.99	91.89
Eom	89.85	90.54	90.61	95.25	96.44	96.77	97.64	97.48	98.23	95.27	92.77	91.99
1958												
5	91.75	91.69	92.34	91.14	93.16	95.32	....	95.95	97.92	95.60	94.49	93.26
10	91.42	91.30	92.77	89.89	93.78	94.55	96.88	97.22	97.07	95.91	95.61	93.34
15	91.30	91.10	91.22	90.86	93.70	95.75	96.17	96.58	97.24	94.84	94.46	93.77
20	91.17	91.74	91.06	93.17	94.14	95.92	96.10	97.52	97.59	95.75	94.20	92.96
25	91.13	92.02	92.33	92.71	93.86	95.82	96.23	97.63	96.88	96.01	93.89	92.73
Eom	92.15	91.27	91.29	92.88	95.13	96.59	95.97	97.83	95.62	95.19	94.42	92.56
1959												
5	92.50	93.03	....	93.66	95.84	....	....	98.44	97.88	97.07	94.51	93.80
10	92.37	92.08	93.43	....	95.39	96.80	97.42	....	98.57	95.87	93.97	93.02
15	92.11	92.31	93.51	....	96.36	97.37	99.37	97.23	97.10	93.76	93.29	....
20	92.38	91.40	....	....	....	97.29	....	98.93	97.03	97.15	93.85	....
25	92.34	91.40	93.61	93.86	96.90	96.22	97.61	97.98	97.95	95.84	93.23	92.07
Eom	91.56	92.23	93.99	94.63	96.80	97.71	99.03	96.68	96.88	95.45	94.79	92.06
1960												
5	91.98	90.96	....	92.71	94.53	94.98	96.35	96.43	95.80	97.37	96.10	93.50
10	91.66	91.18	90.92	93.04	94.66	94.90	96.14	96.15	96.10	96.15	94.46	93.04
15	91.40	90.69	92.29	....	94.60	96.65	97.76	95.91	96.05	96.26	95.27	92.83
20	91.89	90.56	92.71	94.41	....	95.21	96.18	96.01	95.91	95.58	95.32	92.72
25	91.06	....	93.03	93.58	....	95.96	96.39	95.80	96.20	95.94	93.70	92.75
Eom	90.82	....	92.93	....	94.80	96.80	96.64	95.97	97.07	95.93	93.53	94.04

S20/60-25adb1. Jones (State Engineer No. 602). Drilled irrigation and domestic artesian well, diam 10 to 8 in, depth 438 ft, cased, 8-in 0-318, 6-in 318-430. MP top of casing, 1.00 ft above lsd. Highest water level 25.00 below lsd, July 7, 1948 (previously reported 30.81 below lsd, July 31, 1948); lowest 75.42 below lsd, June 26, 1959. Records available: 1948-59. Measurement discontinued.

Water level at noon, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	50.43	50.02	51.51	54.10	55.79	59.59	61.30	61.09	63.58	60.57	....	57.34
10	50.64	50.46	50.98	54.46	55.92	59.86	61.57	62.36	62.60	60.90	59.05	56.96
15	50.26	50.70	52.46	53.88	57.06	60.66	62.11	62.70	63.02	60.40	38.78	56.90
20	50.26	....	52.56	54.51	57.63	60.61	62.54	61.98	62.95	61.00	58.84	56.86
25	50.58	50.40	52.82	55.26	58.91	60.88	60.64	62.60	61.90	59.03	58.24	56.50
Eom	49.99	51.14	53.42	55.94	58.69	61.42	60.09	63.99	61.52	60.20	58.07	56.60
1957												
5	56.60	55.98	57.32	60.04	60.86	64.07	....	67.90	66.44	66.52	62.16	60.57
10	56.38	55.92	56.96	60.08	61.20	64.57	67.18	67.69	66.89	66.23	61.87	61.36
15	56.31	56.50	57.42	60.74	60.62	65.56	66.95	68.03	66.24	64.92	61.58	60.35
20	55.45	56.97	....	59.79	61.32	65.54	67.03	66.27	66.16	63.80	61.54	60.30
25	55.86	56.46	....	58.94	61.10	66.13	67.88	64.72	66.69	63.90	62.01	60.31
Eom	55.78	56.82	58.92	60.31	63.28	66.55	66.04	66.15	....	62.70	61.70	60.35
1958												
5	60.20	59.56	61.16	60.40	65.20	29.13	71.41	72.75	73.44	71.30	69.82	66.26
10	59.92	59.58	60.54	60.97	66.06	69.72	71.98	72.47	71.92	71.96	58.77	66.47
15	60.14	60.32	59.72	62.20	65.20	70.03	72.61	70.38	71.67	72.28	67.27	66.13
20	60.10	60.04	60.80	63.10	66.97	70.09	72.41	72.24	72.42	71.71	66.99	65.90
25	59.78	59.84	61.44	63.69	68.19	70.84	74.26	73.00	70.00	69.85	67.12	65.52
Eom	59.72	60.43	61.04	64.17	68.73	70.90	71.54	72.86	71.74	69.76	....	65.44
1959												
5	65.25	65.38	....	....	69.30	72.78	....	....	....	....	....	....
10	64.84	64.46	....	....	68.82	73.79	....	....	....	....	....	....
15	64.85	....	....	....	70.38	74.28	....	....	....	....	....	....
20	64.76	63.89	....	....	70.39	74.54	....	....	....	....	....	....
25	64.72	64.59	66.78	68.50	70.60	75.04	....	....	....	....	....	....
Eom	....	64.32	66.45	69.38	72.16	74.96	....	....	....	....	....	....

S21/61-4aad1. Opaco Lumber Co. (State Engineer No. 386). Drilled unused artesian well, diam 10 in, depth 793 ft, cased to 770, perforated 338-438, 642-770. Lsd 2, 038.76 ft above msl. MP top of 8-in plug, 3.00 ft above lsd. Highest water level 46.7 above lsd, Feb. 8, 1950 (previously reported 46.5 above lsd, Feb. 21, 1952); lowest 5.98 below lsd, Aug. 3, 1960. Records available: 1944-60.

S21/61-4aad1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27, 1956	+29.0	Feb. 4, 1957	+21.9	June 18, 1958	+2.80	Dec. 2, 1959	+11.6
Apr. 9	18.5	Apr. 9	14.7	Sept. 14	-1.76	Feb. 2, 1960	21.1
June 26	5.85	Aug. 27	3.60	Dec. 2	+13.2	May 3	+6.41
Sept. 26	3.39	Nov. 19	17.7	Feb. 17, 1959	+19.2	Aug. 3	-5.98
Nov. 15	11.4	Feb. 11, 1958	23.4	Sept. 16	-4.32	Dec. 9	+9.0

S21/61-22cccl. A. P. Baker (State Engineer No. 117). Drilled unused artesian well, diam 6 in, depth 500 ft, cased. Lsd 2,070.8 ft above msl. MP 1/8-in plug in casing, 1.00 ft above lsd. Highest water level 35.65 above lsd, Dec. 20, 1942, Jan. 24, 1943; lowest 23.45 below lsd, Aug. 3, 1960. Records available: 1940-60.

Jan. 27, 1956	+3.35	Feb. 4, 1957	+5.54	June 17, 1958	-12.62	Dec. 2, 1959	-5.74
Apr. 9	+3.87	Apr. 9	- .4	Sept. 4	17.70	Feb. 2, 1960	.54
June 26	-5.80	Aug. 27	9.23	Dec. 2	-3.45	May 4	10.35
Sept. 26	9.60	Nov. 19	- .16	Feb. 17, 1959	+1.2	Aug. 3	23.45
Nov. 15	-1.03	Feb. 11, 1958	+3.25	Sept. 16	-19.78	Dec. 10	6.31

S22/61-4bcc1. Fitzpatrick (State Engineer No. 41). Drilled unused well, diam 8 in, depth 355 ft, cased. Lsd 2,224.91 ft above msl. MP top of casing, 3.80 ft above lsd. Highest water level 74.4 below lsd, Jan. 25, 1939; lowest 101.97 below lsd, Sept. 1, 1960. Records available: 1938-60.

Water level at noon, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	88.93	88.63	89.44	90.05	91.03	92.32	93.52	93.10	....	93.43	....	91.09
10	89.00	89.03	89.61	90.43	91.12	92.24	93.50	....	94.54	93.73	92.13	....
15	88.96	89.03	89.96	90.42	91.22	92.23	93.61	93.44	....	....	91.88	90.84
20	88.72	89.31	....	90.71	....	92.61	93.68	93.88	94.56	93.11	91.37	90.88
25	88.81	89.49	89.70	90.83	91.80	92.88	92.91	....	94.02	92.58	91.14	90.81
Eom	88.73	89.44	89.76	91.03	92.38	92.92	92.63	....	94.24	92.20	91.11	90.68

1957

5	91.02	90.50	91.69	92.88	....	94.71	95.54	96.09	95.59	95.71	93.19	92.93
10	91.06	90.55	91.49	93.01	93.49	95.10	95.66	96.38	95.87	95.33	93.15	93.17
15	90.83	90.99	92.37	93.17	93.63	95.11	95.89	96.46	95.45	95.06	92.93	93.59
20	90.65	91.39	92.15	92.76	93.38	95.81	96.17	96.39	95.89	94.65	92.84	93.55
25	90.48	91.50	91.81	92.48	93.73	95.83	96.32	94.87	95.93	94.15	92.82	93.44
Eom	90.40	91.47	....	92.87	94.52	95.86	95.61	95.09	96.02	93.58	93.37	93.19

1958

5	93.16	92.23	92.63	93.48	94.95	96.12	97.55	97.64	97.82	97.68	96.09	95.20
10	93.09	92.11	92.48	93.54	95.15	96.38	97.89	97.44	97.65	97.84	96.30	95.10
15	92.79	92.11	92.49	93.37	94.61	97.12	97.63	97.67	97.84	97.28	....	94.78
20	92.38	92.12	92.82	94.21	95.66	97.39	97.91	98.12	97.70	97.20	....	94.60
25	92.35	92.11	93.29	94.39	96.18	97.88	97.68	98.04	97.47	97.13	....	94.43
Eom	92.39	92.45	93.90	94.34	96.43	97.58	97.58	97.65	97.42	96.34	95.33	94.39

1959

5	94.29	94.86	....	95.35	96.62	97.57	98.60	....	99.42	....	97.35	96.63
10	94.24	94.82	94.99	95.28	96.89	98.17	98.50	98.82	99.38	98.25	96.99	96.53
15	94.61	94.72	95.34	....	97.08	98.41	98.53	98.94	98.99	98.17	97.03	96.20
20	94.65	94.71	....	97.15	98.54	98.57	98.92	98.77	97.86	97.08	96.25	....
25	94.69	94.87	95.52	95.98	97.33	98.45	98.61	99.00	98.76	97.99	97.08	95.91
Eom	94.93	94.78	95.54	96.12	....	98.66	98.88	99.10	98.54	97.84	96.83	95.88

1960

5	96.06	95.96	96.40	98.19	98.30	99.61	100.86	101.40	100.91	100.67	99.35	98.42
10	95.92	95.69	96.98	98.31	98.70	99.49	100.71	101.20	101.12	100.40	98.86	98.20
15	95.91	95.84	96.62	98.09	98.91	99.72	100.81	100.93	101.26	99.74	98.66	98.23
20	95.94	95.81	97.47	98.33	....	99.80	100.84	100.68	101.28	99.66	98.33	98.41
25	95.72	95.69	98.02	98.33	98.96	99.92	100.60	100.91	100.98	99.52	98.47	98.42
Eom	95.74	96.05	98.32	98.20	99.08	100.52	101.14	101.40	100.82	99.64	98.45	98.25

## Muddy River Valley

S14/65-23ac2. V. V. Perkins. Drilled unused well, diam 6 in, depth 50 ft, cased. MP top of casing, 1.90 ft above lsd. Highest water level 0.01 below lsd, Mar. 23, 1956; lowest 7.27 below lsd, Sept. 23, 1948. Records available: 1948-53, 1955-59. No measurement made in 1960. Mar. 23, 1956, 0.01; Oct. 22, 1957, 1.90; Sept. 5, 1958, 4.36; Sept. 18, 1959, 4.82.

S14/66-35dd1. Jay Robb. Drilled irrigation well, diam 16 in, depth 118 ft, cased 0-98, perforated 65-88. MP bottom of slot in casing, 0.80 ft above lsd. Highest water level 11.16 below lsd, Dec. 18, 1951; lowest 38.75 below lsd, Aug. 2, 1960. Records available: 1948, 1950-54, 1957-60. No measurement made 1955-56.

S14/66-35dd1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 12, 1948	12.66	Dec. 18, 1951	11.16	July 1, 1954	a65.20	Dec. 4, 1958	14.81
Mar. 22, 1950	27.50	Mar. 30, 1952	15.00	Oct. 17	a59.40	Mar. 3, 1959	12.47
Sept. 12	12.77	Dec. 10	13.66	Feb. 11, 1957	16.07	Dec. 4	15.68
Dec. 12	11.60	Mar. 28, 1953	b45.28	Aug. 29	20.79	Feb. 5, 1960	13.57
Mar. 28, 1951	11.19	July 18	b30.16	Nov. 21	14.54	Aug. 2	38.75
June 6	13.63	Sept. 19	a66.30	Feb. 13, 1958	14.00	Dec. 12	14.96
Sept. 13	12.55	May 14, 1954	a62.20				

a Well being pumped.

b Well pumped recently.

## Pahrump Valley

S21/54-10aac1. Bowman (State Engineer No. 22). Drilled unused well, diam 14 in, depth 800 ft, cased to 472, perforated 100-450. Lsd 2, 885.68 ft above msl. MP top of casing, 0.30 ft above lsd. Highest water level 25.99 below lsd, Jan. 5, 1945; lowest 52.53 below lsd, Aug. 4, 1958. Records available: 1944-58. Measurement discontinued.

## Water level at noon, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	.....	41.57	42.10	42.44	.....	.....	43.54	43.98	.....	.....	40.13
10	.....	40.72	41.70	.....	42.27	.....	.....	.....	.....	.....	.....	.....
15	.....	41.11	.....	.....	.....	.....	.....	.....	43.89	.....	.....	.....
20	.....	41.48	40.99	42.47	.....	.....	.....	.....	.....	45.01	.....	40.54
25	.....	.....	40.98	42.41	42.84	.....	.....	.....	44.15	.....	.....	40.83
Eom	.....	.....	.....	42.48	.....	.....	.....	.....	43.68	.....	.....	40.52

## 1957

5	40.82	41.00	.....	.....	43.96	43.92	44.50	44.93	45.27	45.31	43.64	42.03
10	40.22	41.89	.....	43.83	44.10	44.25	.....	44.96	45.30	45.21	43.18	41.85
15	.....	41.11	.....	.....	44.14	44.08	44.16	.....	45.10	45.26	45.06	42.85
20	41.44	.....	43.78	44.03	.....	44.26	.....	.....	45.39	44.63	42.70	42.18
25	41.61	42.36	43.99	44.26	43.65	44.42	44.78	45.16	45.36	45.06	42.32	41.77
Eom	41.35	42.54	43.95	44.56	44.24	44.57	44.67	45.31	45.32	44.52	42.29	41.63

## 1958

5	41.56	41.66	42.90	47.28	45.38	47.92	49.43	52.50	51.58	49.50	46.43	45.59
10	42.06	41.58	43.40	47.81	45.86	47.50	49.08	.....	51.50	.....	46.08	46.01
15	42.23	41.32	43.94	47.56	45.59	47.57	50.52	.....	49.50	.....	45.65	46.84
20	42.04	41.09	45.42	47.12	45.24	.....	.....	.....	51.81	.....	45.59	46.64
25	41.74	40.74	.....	46.81	45.79	47.92	51.56	51.56	49.61	47.10	45.29	48.40
Eom	41.81	41.24	47.61	46.04	47.88	49.90	52.12	52.12	.....	48.22	45.24	.....

## Douglas County

## Carson Valley

12/20-17ba1. John Helwinkel, Jr. Drilled irrigation water-table well in alluvium of Quaternary age, diam 18 in, depth 365 ft, cased. Lsd about 4,775 ft above msl. MP slot in pumpbase, 0.10 ft above lsd. Highest water level 8.82 below lsd, July 9, 1949; lowest 20.19 below lsd, Mar. 22, 1960. Records available: 1948-56, 1959-60. No measurement made 1957-58. Apr. 6, 1956, 18.60; Mar. 31, 1959, 18.47; Oct. 5, 17.59; Mar. 22, 1960, 20.19.

13/20-8cal. C. W. Godecke. Drilled stock and irrigation well, diam 18 to 12 in, depth 300 ft, cased, 18-in 0-60, 12-in 60-300. MP slot in pumpbase, 0.80 ft above lsd. Highest water level flowing, Mar. 30, 1950, Sept. 18, Dec. 23, 1952, Apr. 3, 1953; lowest 6.36 below lsd, Sept. 27, 1954. Records available: 1942, 1948-52, 1954-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 6, 1956	0.90	Oct. 2, 1957	3.50	Sept. 23, 1958	0.88	Oct. 5, 1959	2.80
Oct. 2	.50	Mar. 28, 1958	1.54	Mar. 16, 1959	.50	Mar. 22, 1960	1.84
Mar. 19, 1957	.32						

13/20-29aab1. H. F. Dangberg Co. Drilled irrigation artesian well, diam 12 in, reported depth 320 ft, reported plugged at 125 ft. MP top of discharge pipe, 4.85 ft above lsd. Highest water level 0.10 above lsd, May 11, 1948; lowest 4.04 below lsd, Aug. 15, 1950. Records available: 1948-60.

Apr. 6, 1956	1.98	Oct. 2, 1957	1.57	Mar. 16, 1959	2.13	Mar. 22, 1960	2.14
Oct. 2	1.44	Mar. 28, 1958	1.98	Oct. 5	2.38	Aug. 26	2.35
Mar. 19, 1957	1.83	Sept. 23	1.41				

13/20-31bd1. H. Dangberg. Drilled irrigation water-table well in alluvium of Quaternary age, diam 16 in, depth 413 ft, cased to 400, perforated 60-400. MP end of 6-in discharge pipe, 7.00 ft above lsd. Highest water level 2.12 below lsd, Dec. 19, 1950, Sept. 18, 1952; lowest 7.52 below lsd, Aug. 15, 1950. Records available: 1950-60.

Date	Water level						
Apr. 6, 1956	3.17	Oct. 2, 1957	3.96	Mar. 16, 1959	2.26	Mar. 22, 1960	3.40
Oct. 2	2.83	Mar. 28, 1958	2.97	Oct. 5	3.84	Aug. 26	5.50
Mar. 19, 1957	2.98	Sept. 23	6.70				

13/20-32dc1. Mack Land & Cattle Co. Drilled irrigation water-table well in alluvium of Quaternary age, diam 18 in, reported depth 420 ft. Lsd about 4,733 ft above msl. MP top of casing, 0.40 ft above lsd. Highest water level 7.83 below lsd, May 24, 1950; lowest 14.17 below lsd, Aug. 26, 1960. Records available: 1948-60.

Apr. 6, 1956	10.28	Oct. 2, 1957	10.57	Mar. 16, 1959	10.30	Mar. 22, 1960	10.76
Oct. 2	8.65	Mar. 28, 1958	10.06	Oct. 5	10.64	Aug. 26	14.17
Mar. 19, 1957	9.92	Sept. 23	8.21				

14/19-25ba1. Carson Indian Agency. Drilled irrigation water-table well in alluvium of Quaternary age, diam 12 in, depth 239 ft, cased. MP top of casing, 0.50 ft above lsd. Highest water level 10.49 below lsd, May 10, 1946 (previously reported 10.82 below lsd, Apr. 2, 1951); lowest 20.09 below lsd, Aug. 3, 1948. Records available: 1946, 1948-60. Apr. 6, 1956, 14.23; Mar. 19, 1957, 11.19; Mar. 26, 1958, 14.34; Mar. 16, 1959, 12.58; Oct. 5, 20.52 (well pumped recently); Mar. 22, 1960, 20.90 (well pumped recently).

#### Elko County

##### Clover Valley

35/62-27b1. U. S. Geol. Survey. Drilled test and observation well, diam 6 in, depth 286 ft, cased 0-197. MP top of cap on casing, 0.45 ft above lsd. Highest water level 6.70 below lsd (previously reported 6.65 below lsd), Mar. 27, 1951; lowest 11.07 below lsd, May 3, 1955. Records available: 1949-60.

Jan. 31, 1956	9.52	Aug. 21, 1956	8.71	Mar. 2, 1957	9.37	Dec. 27, 1957	8.72
Feb. 25	9.86	29	8.78	29	9.33	Sept. 4, 1958	8.07
Apr. 1	9.67	Oct. 31	9.38	June 29	6.99	Sept. 13, 1959	9.85
June 15	7.73	Jan. 3, 1957	9.39	Sept. 10	8.21	Aug. 14, 1960	9.86

35/62-27b2. U. S. Geol. Survey. Drilled observation water-table well, diam 1 in, depth 15 ft, cased. MP top of casing, 0.47 ft above lsd. Highest water level 6.53 below lsd, June 9, 1949 (previously reported 7.10 below lsd, Sept. 29, 1952); lowest 10.91 below lsd, May 3, 1955. Records available: 1949-60.

Jan. 31, 1956	8.87	Aug. 21, 1956	9.22	Mar. 2, 1957	9.19	Dec. 27, 1957	8.75
Feb. 25	9.44	29	9.29	29	9.15	Sept. 4, 1958	8.36
Apr. 1	9.45	Oct. 31	9.45	June 29	7.89	Sept. 13, 1959	9.27
June 15	8.98	Jan. 3, 1957	9.31	Sept. 10	9.01	Aug. 14, 1960	9.73

##### Goshute-Antelope Valley

34/67-6a2. Western Pacific RR. Co. Shafter. Drilled industrial water-table well, diam 16 in, reported depth 250 ft, cased. MP top of curb, at lsd (since Mar. 27, 1956). Highest water level 26.85 below lsd, Mar. 27, 1951; lowest 30.51 below lsd, Mar. 28, 1949. Records available: 1948-60. Mar. 27, 1956, 27.29; Aug. 29, 28.22; Sept. 11, 1957, 28.75; Sept. 5, 1958, 29.02; Sept. 12, 1959, 29.18; Aug. 14, 1960, 29.17.

##### Humboldt River Valley

[See also Humboldt, Lander, and Pershing Counties]

33/52-27d1. Carlin Town Government. Drilled unused water-table well, diam 20 in, depth 500 ft, cased to 125. MP top of casing, 0.75 ft above lsd. Highest water level 2.77 below lsd, Feb. 20, 1951; lowest 8.88 below lsd, Jan. 20, 1955. Records available: 1938-60.

Jan. 18, 1956	7.10	Oct. 20, 1956	7.37	June 20, 1957	4.50	Mar. 18, 1958	7.15
Feb. 18	7.05	Nov. 18	8.07	July 20	5.99	Apr. 21	6.85
Mar. 19	6.77	Dec. 25	7.25	Aug. 20	6.75	May 18	5.45
Apr. 25	6.47	Jan. 21, 1957	7.45	Sept. 21	6.80	June 20	5.75
May 19	4.28	Feb. 22	7.25	Oct. 21	7.18	Sept. 3	7.19
June 20	4.52	Mar. 19	7.05	Dec. 18	7.95	Mar. 10, 1959	7.67
July 19	5.32	Apr. 19	6.85	Jan. 20, 1958	7.52	Sept. 11	7.90
Aug. 20	8.62	May 20	5.25	Feb. 20	7.38	Aug. 16, 1960	7.70
Sept. 21	7.25						

35/56-30c1. Fernald. Dug unused water-table well, depth 20 ft. MP roofing tack at top of 4- x 6-in wooden pipe clamp, 0.90 ft above lsd. Highest water level 5.20 below lsd, May 28, 1950; lowest 18.5 below lsd, Sept. 28, 1956. Records available: 1938-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 30, 1956	13.0	Dec. 28, 1956	16.0	Sept. 28, 1957	15.4	Apr. 28, 1958	13.4
Apr. 30	15.0	Feb. 28, 1957	13.4	Oct. 28	18.3	May 28	8.5
May 30	10.8	Mar. 28	13.9	Nov. 28	16.1	June 28	9.1
June 30	10.7	Apr. 28	12.7	Dec. 28	14.8	Sept. 5	15.35
July 30	11.7	May 29	8.3	Jan. 28, 1958	7.9	Mar. 10, 1959	14.06
Aug. 28	15.2	June 28	10.8	Feb. 28	13.6	Sept. 12	16.40
Sept. 28	18.5	July 28	11.1	Mar. 28	13.5	Aug. 16, 1960	6.37
Oct. 28	18.0	Aug. 28	15.0				

37/59-26a1. Deeth. Dug domestic water-table well, diam 4 ft, depth 14 ft, cased. MP top of elbow welded on well cover, 1.70 ft above lsd (since Mar. 10, 1959). Highest water level 2.9 below lsd, May 28, 1952; lowest 10.8 below lsd, Mar. 30, Sept. 28, 1955. Records available: 1938-60.

Jan. 28, 1956	10.2	Oct. 28, 1956	9.5	July 28, 1957	6.1	Mar. 28, 1958	7.6
Feb. 29	8.5	Nov. 28	9.9	Aug. 28	8.8	Apr. 28	6.1
Mar. 30	5.7	Dec. 28	10.2	Sept. 28	9.0	May 28	5.3
Apr. 30	5.1	Jan. 28, 1957	10.3	Oct. 28	9.5	June 28	6.8
May 30	4.3	Feb. 28	9.7	Nov. 28	9.65	Sept. 5	7.84
June 30	4.0	Mar. 28	8.3	Dec. 28	9.8	Mar. 10, 1959	8.64
July 30	8.2	Apr. 28	7.8	Jan. 28, 1958	10.3	Sept. 12	8.32
Aug. 28	8.8	May 29	5.1	Feb. 26	7.6	Aug. 15, 1960	7.57
Sept. 28	9.5	June 28	4.9				

#### Lamoille Valley

33/58-19ad1. H. Conrad. Known as Lamoille Church. Dug domestic water-table well, diam 4 ft, depth 16 ft, cased. MP top of wood curb, at lsd. Highest water level 0.6 below lsd, July 1, 1936; lowest 15.1 below lsd, Dec. 15, 1940. Records available: 1934-60.

Jan. 28, 1956	11.4	Oct. 28, 1956	10.5	July 28, 1957	11.1	Mar. 28, 1958	10.1
Feb. 29	10.6	Nov. 28	11.8	Aug. 28	7.1	Apr. 28	11.3
Mar. 30	10.0	Dec. 28	12.3	Sept. 28	7.3	May 28	1.8
Apr. 30	11.1	Jan. 28, 1957	8.0	Oct. 28	10.1	June 28	1.0
May 30	3.3	Feb. 28	10.8	Nov. 28	11.5	Sept. 6	6.73
June 30	3.4	Mar. 28	11.0	Dec. 28	11.7	Mar. 11, 1959	12.85
July 30	2.4	Apr. 28	11.3	Jan. 28, 1958	12.3	Sept. 12	10.37
Aug. 28	3.8	May 29	3.4	Feb. 26	10.3	Aug. 16, 1960	6.47
Sept. 28	8.9	June 28	1.3				

#### Ruby Valley

32/60-29c1. U.S. Geol. Survey. Drilled test and observation well, diam 6 in, depth 202 ft, cased to 137. MP top of cap on casing, 0.70 ft above lsd. Highest water level 1.38 below lsd, Mar. 28, 1951; lowest 5.21 below lsd, Sept. 20, 1955 (previously reported 4.81 below lsd, Sept. 15, 1954). Records available: 1949-60. Mar. 27, 1956, 2.73; Aug. 28, 3.92; Sept. 10, 1957, 4.23; Sept. 4, 1958, 3.79; Sept. 13, 1959, 4.81; Aug. 15, 1960, 4.84.

32/60-29c2. U.S. Geol. Survey. Driven observation water-table well, diam  $1\frac{1}{2}$  in, depth 15 ft, cased to 15. MP top of casing, 2.05 ft above lsd. Highest water level 3.65 below lsd, Mar. 28, 1951; lowest 7.35 below lsd, Sept. 20, 1955. Records available: 1949-60. Aug. 28, 1956, 6.44; Sept. 10, 1957, 6.86; Sept. 4, 1958, 6.47; Sept. 13, 1959, 7.07; Aug. 15, 1960, 7.10.

#### Esmeralda County

##### Alkali Flat

2/38-20dc1. Goldfield and Tonopah RR. Dug unused well, size 4 x 5 ft, depth 114 ft, cribbed with wood. MP top of wood cribbing, at lsd. Highest water level 102.34 below lsd, Dec. 1, 1960; lowest 103.04 below lsd, Feb. 1, 1960. Records available: 1957-60. Oct. 23, 1957, 102.76; Sept. 2, 1958, 102.69; Sept. 14, 1959, 102.50; Feb. 1, 1960, 103.04; Dec. 1, 102.34.

##### Alkali Springs Valley

S1/42-3. Owner unknown. Drilled unused well, diam 6 in, depth unknown, cased. MP top of casing, 0.50 ft above lsd. Highest water level 196.69 below lsd, Feb. 1, 1960; lowest 197.08 below lsd, Oct. 23, 1957. Records available: 1957-60. Oct. 23, 1957, 197.08; Feb. 15, 1958, 196.90; Sept. 2, 196.90; Sept. 14, 1959, 196.81; Feb. 1, 1960, 196.69; Dec. 1, 196.81.

### Fish Lake Valley

S1/35-28a1. Rex B. Clark. Drilled stock water-table well, diam 16 in, depth 624 ft, cased to 600, perforated 150-600. MP top of hole in plug in casing, 0.50 ft above lsd. Highest water level 25.45 below lsd, Jan. 21, 1948; lowest 32.51 below lsd, Mar. 27, 1952 (previously reported 30.89 below lsd, Sept. 30, 1955). Records available: 1945-56, 1958-59. No measurement made in 1957 or 1960. Mar. 20, 1956, 31.20; Aug. 31, 30.83; Oct. 15, 1958, 29.94; Oct. 18, 1959, 30.78.

S3/35-4d3. Sigurd Folwick. Drilled irrigation water-table well, diam 14 in, reported depth 132 ft, perforated 70-132. MP top of casing, 0.50 ft above lsd. Highest water level 44.95 below lsd, Mar. 22, 1950; lowest 48.33 below lsd, Oct. 18, 1959. Records available: 1950-57, 1959. No measurement made in 1958 or 1960. Mar. 20, 1956, 47.89; Aug. 31, 48.27; Oct. 22, 1957, 48.17; Oct. 18, 1959, 48.33.

S3/35-14c4. U. S. Bureau of Land Management. Drilled unused water-table well, diam 12 in, depth unknown, cased. MP top of casing, 0.40 ft above lsd. Highest water level 38.6 below lsd, Jan. 21, 1948; lowest 43.24 below lsd, Oct. 18, 1959. Records available: 1945, 1947-59. No measurement made in 1960. Mar. 20, 1956, 42.07; Aug. 31, 42.38; Oct. 22, 1957, 42.66; Oct. 15, 1958, 41.87; Oct. 18, 1959, 43.24.

### Tonopah and Vicinity

3/40-2c1. Millers Mill. Dug unused water-table well, size 8 x 5 ft, depth 61 ft, cribbed with wood. MP arrow carved on southwest corner of cribbing, at lsd. Highest water level 39.10 below lsd, Nov. 10, 1948 (previously reported 39.11 below lsd, Sept. 8, 1952); lowest 39.92 below lsd, Dec. 1, 1960. Records available: 1948-55, 1957-60. No measurement made in 1956. Oct. 23, 1957, 39.56; Sept. 2, 1958, 39.43; Sept. 14, 1959, 39.38; Dec. 1, 1960, 39.92.

### Eureka County

#### Antelope Valley

18/51-34d1. Bartholemew Corp. Drilled stock water-table well, diam 6 in, depth 134 ft, cased. MP top of casing, 0.60 ft above lsd. Highest water level 93.96 below lsd, Oct. 1, 1952; lowest 94.23 below lsd, Dec. 17, 1959. Records available: 1949-53, 1955, 1959. No measurement made in 1956-58 or 1960. Dec. 17, 1959, 94.23.

#### Crescent Valley

29/48-34c1. Dan Filippini. Drilled stock water-table well, diam 6 in, depth unknown, cased. Lsd 4,731.3 ft above msl. MP lower edge of pumpbase, 0.40 ft above lsd. Highest water level 4.17 below lsd, Mar. 12, 1957; lowest 13.52 below lsd, Mar. 27, 1956. Records available: 1948-52, 1954-58. Measurement discontinued. Mar. 27, 1956, 13.52; Aug. 25, 6.93; Mar. 12, 1957, 4.17; Sept. 9, 7.81; Mar. 17, 1958, 6.56.

29/48-34c2. Dan Filippini. Drilled unused well, diam 4 in, depth 108 ft. Lsd 4,731± ft above msl. MP top of casing, at lsd. Highest water level 2.68 below lsd, Mar. 10, 1959; lowest 6.13 below lsd, Sept. 11, 1959. Records available: 1958-60. Replaces well 29/48-34c1. Sept. 3, 1958, 5.46; Mar. 10, 1959, 2.68; Sept. 11, 6.13; Aug. 16, 1960, 5.07.

#### Diamond Valley

20/53-15b1. U. S. Bureau of Land Management. Dug stock water-table well, diam 4 ft, reported depth 99 ft, cribbed with concrete. MP inside edge of concrete curb marked with arrow, 2.90 ft above lsd. Highest water level 71.75 below lsd, Apr. 30, 1948; lowest 76.49 below lsd, Mar. 24, 1949. Records available: 1947-59. No measurement made in 1960.

Date	Water level						
Jan. 20, 1956	74.51	Jan. 15, 1957	74.84	Sept. 6, 1957	75.12	Nov. 23, 1958	75.76
Mar. 26	74.60	Mar. 6	75.13	Jan. 7, 1958	75.14	Jan. 15, 1959	75.95
May 10	74.84	May 2	74.96	May 7	75.27	May 12	76.22
June 20	74.65	July 11	75.03	July 15	75.43	Dec. 18	75.21
Aug. 7	74.64						

20/53-31d1. A. C. Florio. Drilled stock well, diam 6 in, depth unknown, cased. MP top of casing, 4.00 ft above lsd. Highest water level 155.46 below lsd, Sept. 6, 1957; lowest 165.90 below lsd, Sept. 13, 1949. Records available: 1947-60.

20/53-31d1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20, 1956	157.43	Nov. 19, 1956	156.59	Sept. 6, 1957	155.46	Jan. 15, 1959	157.03
Mar. 26	157.39	Jan. 15, 1957	156.92	Jan. 7, 1958	155.89	May 12	157.42
May 10	157.59	Mar. 6	156.42	May 7	155.77	Dec. 12	163.07
June 20	157.28	May 2	156.22	July 15	156.06	Mar. 7, 1960	155.74
Aug. 7	157.70	July 11	155.99	Nov. 23	156.72	Sept. 27	158.45

21/53-5c1. A. C. Florio. Drilled stock water-table well, diam 4 ft, depth 42 ft, cased. MP top of casing, 4.00 ft above lsd. Highest water level 27.61 below lsd, Dec. 18, 1959; lowest 29.00 below lsd, Aug. 28, 1956. Records available: 1947-56, 1959. No measurement made 1957-58 or 1960. Mar. 26, 1956, 28.93; Aug. 28, 29.00; Dec. 18, 1959, 27.61.

22/54-27c1. Robert Stucki. Drilled domestic and irrigation well, diam 12 in., depth 94 ft, cased to 93, perforated 46-93. Lsd 4, 858 ft above msl. MP top of casing, 0.80 ft above lsd. Highest water level 5.49 below lsd, Aug. 11, 1949; lowest 13.60 below lsd, Dec. 18, 1959. Records available: 1949-55, 1957, 1959. No measurement made in 1956, 1958 or 1960. Sept. 6, 1957, 12.44; Dec. 18, 1959, 13.60.

#### Humboldt County

##### Grass Valley

[See also Pershing County]

35/37-28b1. U. S. Bureau of Land Management. Button Sage well. Drilled unused water-table well, diam 12 in., depth 73 ft, perforated 0-73. Lsd 4, 300 ft above msl. MP top of casing, 1.40 ft above lsd. Highest water level 33.30 below lsd, Sept. 11, 1952; lowest 39.69 below lsd, Aug. 29, 1960. Records available: 1946-60.

Mar. 21, 1956	38.23	Mar. 20, 1958	37.59	Mar. 9, 1959	37.58	Mar. 29, 1960	38.76
Sept. 27	38.60	Sept. 9	37.55	Sept. 17	39.45	Aug. 29	39.69
Sept. 8, 1957	37.99						

35/37-34a2. Owner unknown. Drilled unused water-table well, diam 10 in., depth 83 ft, cased. Lsd 4, 301.5 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 17.68 below lsd, May 16, 1946; lowest 24.94 below lsd, Aug. 29, 1960. Records available: 1946-60.

Mar. 21, 1956	22.05	Mar. 20, 1958	21.34	Mar. 9, 1959	21.33	Mar. 29, 1960	22.93
Sept. 27	22.96	Sept. 9	20.50	Sept. 14	24.28	Sept. 29	24.94
Sept. 14, 1957	21.14						

##### Humboldt River Valley

[See also Elko, Lander, and Pershing Counties]

35/37-8d2. D. H. McNinch. Drilled unused water-table well, diam 16 in., depth 77 ft, cased. Lsd 4, 301 ft above msl. MP top of casing, 1.20 ft above lsd. Highest water level 50.74 below lsd, Mar. 17, 1953; lowest 59.55 below lsd, Sept. 2, 1960. Records available: 1947-60.

Mar. 24, 1956	57.20	Mar. 15, 1957	57.36	Sept. 9, 1958	57.68	Mar. 29, 1960	58.44
Aug. 30	57.59	Sept. 14	57.98	Mar. 12, 1959	57.78	Sept. 2	59.55
Sept. 25	58.16	Mar. 20, 1958	56.69	Sept. 17	59.16		

36/38-16c1. George Hay Co. Drilled irrigation water-table well, diam 12 in., depth 55 ft, cased. Lsd 4, 291.6 ft above msl. MP top of  $\frac{1}{2}$ -in hole in pumpbase, 0.30 ft above lsd. Highest water level 15.08 below lsd, May 14, 1951; lowest 21.53 below lsd, Oct. 29, 1951. Records available: 1947-59. No measurement made in 1960. Mar. 21, 1956, 17.83; Sept. 25, 19.19; Mar. 15, 1957, 18.03; Sept. 14, 18.77; Mar. 20, 1958, 17.35; Mar. 9, 1959, 19.09.

##### Paradise Valley

39/39-16d1. Dwight C. Vedder. Drilled stock water-table well, diam 12 in., depth 46 ft, cased. Lsd 4, 331.7 ft above msl. MP bottom edge of pumpbase, 0.30 ft above lsd. Highest water level 3.82 below lsd, May 28, 1951; lowest 10.69 below lsd, Sept. 14, 1948. Records available: 1947-60.

Mar. 22, 1956	8.93	Sept. 13, 1957	8.28	Mar. 2, 1959	6.33	Mar. 16, 1960	7.71
Sept. 26	9.09	Sept. 8, 1958	8.24	Sept. 27	8.86	Aug. 30	8.68
Mar. 14, 1957	8.10						

40/39-10d1. Owner unknown. Drilled unused water-table well, diam 12 in, depth 55 ft, cased with stovepipe. Lsd 4, 422 ft above msl. MP top of casing, 0.20 ft above lsd. Highest water level 37.82 below lsd, Mar. 19, 1958; lowest dry, Sept. 8, 1958. Records available: 1945-58. Measurement discontinued. Mar. 22, 1956, 44.43; Sept. 26, 43.22; Mar. 14, 1957, 43.03; Mar. 19, 1958, 37.82; Sept. 8, dry.

42/39-25c1. U. S. Bureau of Land Management. Dug unused water-table well, diam 6 ft, depth 18 ft, cased with iron. Lsd 4, 523 ft above msl. MP top of concrete floor, 5.20 ft below lsd. Highest water level 1.80 below lsd, July 8, 1958; lowest 10.95 below lsd, Jan. 14, 1956. Records available: 1945-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 14, 1956	10.95	July 9, 1957	4.13	Sept. 12, 1958	7.97	Nov. 11, 1959	10.05
Feb. 3	8.50	Aug. 12	6.58	Oct. 17	8.48	Dec. 10	10.09
Mar. 8	8.01	Sept. 27	8.17	Nov. 13	8.57	Jan. 20, 1960	10.16
Apr. 6	7.41	Oct. 19	8.38	Dec. 11	8.63	Feb. 18	9.76
24	6.10	Nov. 21	8.19	Jan. 9, 1959	8.61	Mar. 14	9.21
May 24	4.06	Dec. 12	8.18	Feb. 18	8.39	16	9.08
June 14	2.93	Jan. 23, 1958	8.07	Mar. 11	8.19	30	8.77
July 19	5.85	Feb. 20	6.49	12	8.26	Apr. 7	8.82
Aug. 9	7.11	Mar. 19	5.25	Apr. 15	8.10	27	8.80
Sept. 26	8.65	29	5.12	May 14	8.29	May 26	6.80
28	8.70	Apr. 23	4.31	June 6	8.46	Aug. 12	9.46
Nov. 1	8.93	May 3	4.48	July 2	8.48	30	9.80
Dec. 6	8.94	17	2.08	Aug. 11	9.25	Sept. 15	10.04
Jan. 16, 1957	8.70	June 10	2.86	Sept. 15	9.99	Oct. 22	10.30
Feb. 20	8.41	July 8	1.80	29	10.00	Nov. 15	10.27
Mar. 14	8.48	Aug. 29	2.90	Oct. 15	9.97	Dec. 12	10.22
Apr. 11	6.74	Sept. 8	7.96				

## Quinn River Valley

42/37-3b1. George Reed. Drilled irrigation water-table well, diam 12 in, depth 160 ft, cased to 160. MP top of casing, 1.20 ft above lsd. Highest water level 16.55 below lsd, Jan. 20, 1950; lowest 41.45 below lsd, Sept. 1, 1960. Records available: 1949-60.

Sept. 15, 1949	16.80	Mar. 27, 1952	18.20	Mar. 17, 1955	20.38	Mar. 19, 1958	23.48
Jan. 20, 1950	16.55	Sept. 10	b21.74	Sept. 7	b29.55	Sept. 8	25.88
June 28	b19.35	Mar. 18, 1953	16.68	Mar. 22, 1956	22.87	Mar. 12, 1959	23.24
Sept. 16	19.80	Sept. 16	b23.60	Sept. 26	25.62	Sept. 29	28.83
Mar. 29, 1951	17.84	Mar. 9, 1954	17.30	Mar. 14, 1957	23.51	Mar. 15, 1960	27.37
July 26	b23.60	Sept. 10	b27.34	Sept. 13	25.56	Sept. 1	41.45
Sept. 17	20.35	24	23.30				

b Nearby well being pumped.

42/37-33b2. Hassenyager. Drilled irrigation water-table well, diam 18 in, depth 95 ft, cased to 68. MP top of slot in east side of casing, 2.00 ft above lsd. Highest water level 35.42 below lsd, Sept. 16, 1953; lowest 45.56 below lsd, Sept. 1, 1960. Records available: 1948-60.

Mar. 22, 1956	40.78	Sept. 13, 1957	39.85	Mar. 12, 1959	36.23	Mar. 15, 1960	39.57
Sept. 26	42.16	Mar. 19, 1958	38.19	Sept. 29	40.17	Sept. 1	45.56
Mar. 14, 1957	40.28	Sept. 8	38.23				

43/37-4c2. Owner unknown. Drilled unused water-table well, diam 6 in, depth 42 ft, cased. Lsd 4, 230 ft above msl. MP top of casing, 0.40 ft above lsd. Highest water level 30.41 below lsd, Sept. 10, 1952; lowest 35.76 below lsd, Mar. 14, 1957. Records available: 1947-59. No measurement made in 1960. Mar. 22, 1956, 35.22; Sept. 26, 34.98; Mar. 14, 1957, 35.76; Sept. 13, 34.92; Mar. 19, 1958, 34.62; Sept. 8, 34.75; Mar. 12, 1959, 35.42.

43/37-28a1. Elmo Bowly. Dug and drilled irrigation water-table well, size 5 x 6 ft, depth 57 ft, wood cribbed to 12, 12-in diam 12-57. Lsd 4, 234 ft above msl. MP top of well curb, 1.00 ft above lsd. Highest water level 8.13 below lsd, Nov. 5, 1947; lowest 21.10 below lsd, Sept. 13, 1957. Records available: 1946-59. Measurement discontinued. Mar. 22, 1956, 14.69; Sept. 13, 1957, 21.10; Mar. 19, 1958, 16.80; Mar. 12, 1959, 16.90.

Lander County

## Crescent Valley

29/48-29c2. Beowawe Farms. Drilled irrigation well, diam 14 in, depth 300 ft, cased to 300. MP top of casing, 0.60 ft above lsd. Highest water level 63.56 below lsd, Mar. 17, 1958; lowest 64.45 below lsd, Sept. 3, 1958. Records available: 1958-60. Mar. 17, 1958, 63.56; Sept. 3, 64.45; Mar. 10, 1959, 63.67; Sept. 11, 63.77; Aug. 16, 1960, 63.84.

30/48-33c1. H. J. Buchaneau. Drilled irrigation well, diam 14 in, reported depth 300 ft, cased to 300. Lsd 4, 804.36 ft above msl. MP top of air line slot, 0.50 ft above lsd (since Mar. 17, 1958). Highest water level 58.40 below lsd, Mar. 6, 1953; lowest 70.78 below lsd, Sept. 11, 1959. Records available: 1953, 1958-59. No measurement made 1954-57, 1960. Mar. 6, 1953, 58.40; Oct. 21, 68.84; Mar. 17, 1958, 69.48; Sept. 28, 70.44; Mar. 10, 1959, 69.54; Sept. 11, 70.78.

#### Humboldt River Valley

[See also Elko, Humboldt, and Pershing Counties]

32/45-11d1. U. S. Geol. Survey. Drilled test and observation well, diam 6 in, depth 197 ft, cased to 171. MP top of casing, 2.00 ft above lsd. Highest water level 4.08 below lsd, July 10, 1952; lowest 10.58 below lsd, Sept. 21, 1955. Records available: 1949-60.

Date	Water level						
Aug. 29, 1956	8.00	Mar. 17, 1958	7.60	Mar. 11, 1959	8.77	Mar. 14, 1960	9.22
Mar. 12, 1957	7.17	Sept. 2	8.91	Sept. 11	10.27	Aug. 17	10.30
Sept. 12	7.77						

32/46-11d1. U. S. Bureau of Reclamation. Dug stock water-table well, size 4 x 5 ft, depth 13 ft, cribbed with wood. Lsd 4, 543 ft above msl. MP top of 8- x 14-in timber pump support, 0.80 ft above lsd. Highest water level 3.77 below lsd, Apr. 11, 1946; lowest 9.77 below lsd, Sept. 6, 1955. Records available: 1945-59. No measurement made in 1960. Mar. 28, 1956, 6.06; Aug. 29, 8.97; Mar. 12, 1957, 6.52; Sept. 11, 8.49; Mar. 18, 1958, 6.64; Sept. 2, 8.30; Mar. 11, 1959, 7.18.

32/46-31bb1. Humboldt Petroleum Co. Drilled oil test well, diam 6 in, reported depth 126 ft, cased. Lsd 4, 529 ft above msl. MP top of casing, 0.90 ft above lsd. Highest water level 10.75 below lsd, Apr. 3, 1952; lowest 12.58 below lsd, Sept. 21, 1955 (previously reported 12.19 below lsd, Sept. 19, 1949). Records available: 1947-60.

Mar. 28, 1956	11.53	Sept. 11, 1957	12.36	Mar. 11, 1959	11.61	Mar. 15, 1960	11.76
Aug. 29	12.04	Mar. 17, 1958	11.71	Sept. 11	12.46	Aug. 17	12.08
Mar. 11, 1957	12.26	Sept. 2	12.22				

#### Reese River Valley

27/43-33cd1. Owner unknown. Watts. Drilled unused well, diam 6 in, depth 114 ft, cased. Lsd 4, 810 ft above msl. MP top of 2-in plank cover, 0.40 ft above lsd. Highest water level 12.36 below lsd, Apr. 22, 1948; lowest 15.12 below lsd, Sept. 3, 1958. Records available: 1947-58. No measurement made 1959-60. Mar. 27, 1956, 13.75; Sept. 12, 1957, 15.06; Sept. 3, 1958, 15.12.

30/42-24cc1. U. S. Bureau of Land Management. Drilled stock water-table well, diam 6 in, depth 54 ft, cased. Lsd 4, 634± ft above msl. MP  $\frac{1}{2}$ -in hole in pumpbase, 0.10 ft above lsd. Highest water level 10.30 below lsd, Mar. 16, 1949; lowest 13.25 below lsd, Sept. 21, 1955. Records available: 1947-60.

Mar. 27, 1956	10.94	Sept. 12, 1957	12.74	Sept. 3, 1958	12.13	Sept. 10, 1959	12.89
Aug. 29	12.00	Mar. 18, 1958	11.12	Mar. 11, 1959	11.31	Aug. 17, 1960	12.39

30/43-9aa1. Copper Canyon Mining Co. Drilled unused well, diam 12 in, depth 201 ft, cased to 192. Lsd 4, 767 ft above msl. MP top of casing, 0.30 ft above lsd. Highest water level 134.56 below lsd, May 22, 1947; lowest 138.27 below lsd, Mar. 16, 1951. Records available: 1947-60.

Mar. 28, 1956	136.15	Sept. 12, 1957	135.57	Sept. 3, 1958	135.63	Sept. 10, 1959	135.90
Aug. 29	135.81	Mar. 18, 1958	135.70	Mar. 11, 1959	135.92	Aug. 17, 1960	136.19
Mar. 12, 1957	136.16						

30/44-22cb1. Owner unknown. Dillon. Drilled unused water-table well, diam 6 in, depth 80 ft. Lsd 4, 676 ft above msl. MP top of casing, 0.90 ft above lsd (since Sept. 3, 1958). Highest water level 26.64 below lsd, Nov. 8, 1947; lowest 30.65 below lsd, Aug. 17, 1960. Records available: 1947-60.

Mar. 27, 1956	28.95	Mar. 12, 1957	28.76	Mar. 18, 1958	29.13	Mar. 11, 1959	29.48
Aug. 29	28.73	Sept. 12	28.91	Sept. 3	30.33	Aug. 17, 1960	30.65

30/45-18aa1. U. S. Bureau of Land Management. Dug stock water-table well, size 4 x 4 ft, reported depth 60 ft, cribbed with wood. Lsd 4, 635 ft above msl. MP top of plank platform, at lsd. Highest water level 23.69 below lsd, Jan. 8, 1948; lowest 32.18 below lsd, Aug. 17, 1960. Records available: 1947-60.

Mar. 27, 1956	29.03	Sept. 12, 1957	28.77	Sept. 3, 1958	29.68	Sept. 10, 1959	31.01
Aug. 29	27.47	Mar. 18, 1958	28.80	Mar. 11, 1959	29.71	Aug. 17, 1960	32.18
Mar. 12, 1957	27.64						

Lincoln County

## Lake Valley

[See also White Pine County]

9/65-1b1. Fred Twisselman. Drilled irrigation well, diam 12 in, depth 165 ft, cased. MP top of casing, at lsd. Highest water level 23.64 below lsd, Apr. 16, 1947; lowest 41.99 below lsd, Oct. 25, 1957. Records available: 1947-55, 1957-60. No measurement made in 1956. Oct. 25, 1957, 41.99; Sept. 5, 1958, 36.00; Sept. 19, 1959, 38.36; Dec. 7, 1960, 38.04.

## Meadow Valley

S1/68-33b1. Lafe Matthews Estate. Drilled irrigation well in alluvium of Quaternary age, diam 10 in, reported depth 120 ft, cased to 80, perforated 60-80. Lsd 4, 784.7 ft above msl. MP top south side of casing, at lsd. Highest water level 30.32 below lsd, Apr. 25, 1946; lowest 40.50 below lsd, Sept. 19, 1959. Records available: 1946-55, 1957-60. No measurement made in 1956. Oct. 23, 1957, 36.83; Sept. 7, 1958, 38.03; Sept. 19, 1959, 40.50; Dec. 7, 1960, 37.87.

S2/68-8b5. U. S. Geol. Survey. Drilled test and observation well in alluvium of Quaternary age, diam 8 in, depth 110 ft, cased to 110. MP top of recorder platform, 1.20 ft above lsd. Highest water level 10.72 below lsd, Mar. 20, 1950; lowest 17.48 below lsd, Sept. 19, 1959. Records available: 1949-59. No measurement made in 1960. Mar. 16, 1956, 11.71; Apr. 8, 12.85; Oct. 23, 1957, 16.83; Sept. 7, 1958, 15.37; Sept. 19, 1959, 17.48.

## Pahranagat Valley

S4/60-34a2. W. U. Schofield, Jr. Drilled unused well, diam 10 in, reported depth 96 ft, cased to 96, perforated 60-96. MP top of casing, 1.30 ft above lsd. Highest water level 58.12 below lsd, Aug. 8, 1946; lowest 64.31 below lsd, Feb. 19, 1948. Records available: 1946, 1948-60. Mar. 21, 1956, 60.48; Aug. 30, 61.29; Oct. 23, 1957, 62.20; Sept. 6, 1958, 63.66; Sept. 18, 1959, 63.78; Dec. 7, 1960, 64.02.

S6/61-18d2. Gardner Chism. Drilled unused well, diam 6 in, depth 41 ft, cased. MP top of flange on casing, 1.70 ft above lsd. Highest water level 5.35 below lsd (previously reported 5.55 below lsd), Mar. 14, 1951; lowest 9.66 below lsd, Sept. 8, 1954. Records available: 1946-60. Mar. 21, 1956, 7.56; Aug. 30, 8.19; Oct. 22, 1957, 7.86; Sept. 6, 1958, 7.45; Sept. 18, 1959, 8.09; Dec. 7, 1960, 8.06.

S8/61-2c1. J. H. Hail. Drilled irrigation well, diam 10 in, depth 92 ft, sand-filled to 30. MP top edge of 1-in hole in pumpbase, 0.80 ft above lsd. Highest water level 19.37 below lsd, Mar. 21, 1950; lowest 26.98 below lsd, Mar. 24, 1955. Records available: 1946-60. Mar. 21, 1956, 25.22; Aug. 30, 24.72; Oct. 23, 1957, 23.30; Sept. 6, 1958, 22.73; Sept. 18, 1959, 23.87; Dec. 17, 1960, 22.97.

Lyon County

## Mason Valley

12/25-35dc1. John C. Baker. Drilled irrigation well, diam 16 in, reported depth 253 ft, cased to 242. MP top of slot in casing, 1.50 ft above lsd. Highest water level 3.39 below lsd, Aug. 18, 1958; lowest 10.19 below lsd, Mar. 22, 1960. Records available: 1953, 1957-60. No measurement made 1954-56.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Sept. 11, 1953	4.32	Oct. 1, 1957	3.43	Aug. 18, 1958	3.39	Sept. 21, 1959	7.11
Apr. 22, 1957	8.69	Mar. 25, 1958	8.09	Mar. 24, 1959	7.27	Mar. 22, 1960	10.19

13/25-14bc1. Yerington High School. Drilled irrigation well, diam 8 in, depth unknown. cased. MP top of casing, 1.20 ft below lsd. Highest water level 3.35 below lsd, Apr. 22, 1957; lowest 5.72 below lsd, Oct. 4, 1960. Records available: 1957-60. Apr. 22, 1957, 3.35; Oct. 1, 3.43; Mar. 25, 1958, 3.38; Mar. 24, 1959, 3.63; Sept. 21, 4.36; Oct. 4, 1960, 5.72.

14/25-28d1. School District. Drilled unused well, diam 6 in, depth 38 ft, cased. MP top of casing, 0.70 ft above lsd. Highest water level 1.75 below lsd, July 13, 1953; lowest 6.73 below lsd, Oct. 4, 1960. Records available: 1947-60.

Apr. 3, 1956	5.41	Mar. 25, 1958	5.49	Mar. 24, 1959	5.50	Mar. 22, 1960	6.04
Mar. 21, 1957	5.28	Aug. 18	3.63	Sept. 21	6.62	Oct. 4	6.73
Oct. 1	3.48						

15/25-26c1. Mason Valley Ranch. Drilled unused well, diam 8 in, depth 49 ft, cased. MP top of casing, 2,60 ft above lsd. Highest water level 3.45 below lsd, Mar. 23, 1959; lowest 7.41 below lsd, Oct. 4, 1960. Records available: 1945, 1947-55, 1957-60. No measurement made in 1956.

Date	Water level						
Mar. 21, 1957	4.07	Mar. 24, 1958	4.38	Mar. 23, 1959	3.45	Mar. 22, 1960	5.05
Oct. 1	5.38	Aug. 18	3.72	Sept. 21	5.71	Oct. 4	7.41

### Smith Valley

11/23-3dc1. R. B. Day. Drilled irrigation well, diam 12 in, depth 242 ft, cased to 164, perforated 0-164. Lsd 4,830 ft above msl. MP top of casing, 1,20 ft above lsd. Highest water level 45.21 below lsd, June 17, 1957; lowest 53.11 below lsd, June 9, 1960. Records available: 1948-57, 1959-60. No measurement made in 1958. Sept. 29, 1956, 50.75; Dec. 20, 48.48; June 17, 1957, 45.21; Sept. 25, 47.60; Dec. 10, 48.27; Mar. 19, 1959, 50.89; June 9, 1960, 53.11.

11/24-22dc1. Fred Fulstone. Dug unused water-table well, size 18 x 30 in, reported depth 130 ft, cribbed with concrete. Lsd 4,888.46 ft above msl. MP top of hole in floor of recorder platform, 1,40 ft above lsd. Highest water level 53.46 below lsd, Feb. 3, 1953; lowest 67.24 below lsd, Dec. 20, 1960. Records available: 1948-60.

Water level at noon, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	60.44	60.58	60.77	61.00	57.85	.....	.....	58.04	.....	57.85	57.35	55.55
10	.....	60.62	60.80	61.00	57.57	56.78	.....	58.16	57.66	57.60	57.18	55.81
15	60.45	60.64	.....	60.94	57.08	56.88	.....	58.28	57.81	57.35	56.86	56.01
20	60.48	60.68	60.88	60.74	56.88	56.28	.....	58.42	57.93	57.32	56.52	56.15
25	60.51	60.71	60.91	.....	56.58	55.50	.....	58.56	58.01	57.33	56.10	56.53
Eom	60.55	60.73	60.96	.....	56.64	.....	.....	58.62	57.99	57.46	55.78	56.63
1957												
5	56.83	57.59	57.73	58.39	58.84	58.88	58.58	58.99	59.39	59.69	59.12	59.14
10	.....	57.77	57.81	58.52	58.91	58.90	58.61	59.08	59.43	59.62	59.11	.....
15	.....	57.70	57.93	58.60	59.01	58.95	58.64	59.15	59.48	.....	59.10	.....
20	.....	57.58	58.02	58.66	59.07	59.02	.....	59.22	59.55	.....	59.22	.....
25	57.44	57.60	58.20	58.73	59.14	58.82	58.80	59.26	59.56	.....	59.21	57.14
Eom	57.51	57.54	58.32	58.75	58.97	58.62	58.92	.....	59.63	59.08	59.31	.....
1958												
5	.....	56.89	.....	57.54	57.71	56.07	53.77	55.49	56.65	.....	.....	.....
10	.....	57.00	.....	57.75	56.89	56.13	53.64	.....	56.73	.....	57.49	.....
15	.....	57.13	.....	57.88	56.78	.....	54.02	.....	56.93	.....	.....	.....
20	.....	57.29	.....	58.01	56.58	.....	54.49	.....	57.05	.....	58.12	.....
25	56.61	.....	.....	58.12	56.39	.....	54.86	.....	.....	.....	58.22	.....
Eom	56.78	.....	.....	58.05	56.28	53.58	55.23	.....	.....	.....	58.31	.....
1959												
5	58.30	58.88	59.28	59.74	.....	.....	.....	60.79	61.24	61.64	62.04	62.27
10	58.52	58.94	59.39	59.80	.....	.....	.....	60.86	61.33	61.71	62.08	62.32
15	58.59	58.98	.....	.....	.....	.....	.....	60.93	61.39	61.77	62.12	62.35
20	58.66	59.11	59.52	.....	.....	.....	60.57	61.03	61.46	61.83	62.17	62.37
25	58.74	59.20	59.61	.....	.....	.....	60.63	61.08	61.53	.....	62.23	62.47
Eom	58.83	59.23	59.72	.....	.....	.....	60.72	61.18	61.57	62.00	62.27	62.49
1960												
5	.....	62.77	62.90	63.27	63.62	.....	64.56	65.05	.....	66.30	.....	67.10
10	62.54	62.79	63.03	.....	63.67	64.16	64.59	.....	.....	66.37	.....	67.16
15	62.64	62.82	63.11	.....	63.70	64.28	64.69	.....	.....	66.48	.....	67.20
20	62.66	62.89	63.13	.....	63.83	64.34	64.79	.....	.....	66.54	66.91	67.24
25	62.71	62.86	63.16	63.48	.....	64.40	64.87	.....	.....	66.61	66.95	.....
Eom	62.70	62.89	63.25	63.55	.....	64.45	64.97	.....	.....	66.71	67.03	.....

11/24-32dc1. A. Nuti. Drilled irrigation well, diam 16 in, reported depth 390 ft, cased. Lsd 4,865 ft above msl. MP bottom of torch-cut slot, 0.20 ft above lsd (since Sept. 21, 1959). Highest water level 23.62 below lsd, Mar. 3, 1948; lowest 60.56 below lsd, Oct. 4, 1960. Records available: 1948-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 16, 1956	32.85	Sept. 25, 1957	39.46	Dec. 16, 1958	32.40	Mar. 22, 1960	36.15
Oct. 6	33.54	Dec. 10	32.55	Mar. 19, 1959	32.28	June 9	38.76
Dec. 20	31.93	Mar. 31, 1958	32.98	June 10	c62.59	Aug. 15	386.40
Mar. 21, 1957	32.12	June 25	36.00	Sept. 21	46.70	Oct. 4	60.56
June 17	37.76	Sept. 22	36.92	Jan. 6, 1960	36.58		

c Nearby well being pumped.

Mineral County

## Lake Valley

8/30-3da1. U. S. Naval Ammunition Depot. Drilled domestic and industrial well, diam 18 in, depth 852 ft, cased. Lsd 4, 125± ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 47.20 below lsd, Dec. 9, 1954; lowest 49.48 below lsd, Nov. 22, 1960. Records available: 1954, 1957-60. No measurement made 1955-56. Oct. 21, 1957, 48.19; Sept. 25, 1958, 48.57; Sept. 20, 1959, 49.00; Nov. 22, 1960, 49.48.

8/30-18aad1. U. S. Naval Ammunition Depot. Drilled irrigation well, diam 18 in, depth 345 ft, cased. MP top of measuring pipe, 1.00 ft above lsd. Highest water level 95.1 below lsd, Nov. 21, 1952; lowest 100.83 below lsd, Nov. 22, 1960. Records available: 1952, 1957-60. No measurement made 1953-56. Nov. 21, 1952, 95.1; Oct. 21, 1957, 99.13; Sept. 25, 1958, 99.38; Oct. 20, 1959, 100.16; Nov. 22, 1960, 100.83.

8/30-21ddb1. U. S. Naval Ammunition Depot. Drilled domestic and irrigation well, diam 18 in, depth 394 ft, cased. MP top of casing cover, 1.20 ft above lsd. Highest water level 199.9 below lsd, Nov. 21, 1952; lowest 209.18 below lsd, Nov. 22, 1960. Records available: 1952, 1957-60. No measurement made 1953-56. Nov. 21, 1952, 199.9; Oct. 21, 1957, 204.83; Sept. 25, 1958, 207.19 (well being pumped); Oct. 20, 1959, 205.6; Nov. 22, 1960, 209.18.

8/30-26dd1. U. S. Naval Ammunition Depot. Drilled industrial well, diam 18 in, depth 423 ft, cased. MP top of measuring pipe, 1.00 ft above lsd. Highest water level 246.5 below lsd, Nov. 21, 1952; lowest 250.86 below lsd, Nov. 22, 1960. Records available: 1952, 1957-60. No measurement made 1953-56. Nov. 21, 1952, 246.5; Oct. 21, 1957, 249.13; Sept. 25, 1958, 249.96; Oct. 20, 1959, 250.22; Nov. 22, 1960, 250.86.

8/31-32bab1. U. S. Naval Ammunition Depot. Drilled industrial well, diam 18 in, depth 452 ft, cased. Lsd 4, 374 ft above msl. MP top of measuring pipe, 0.20 ft above lsd. Highest water level 242.6 below lsd, Nov. 21, 1952; lowest 244.68 below lsd, Nov. 22, 1960. Records available: 1952, 1957-58, 1960. No measurement made 1953-56 or 1959. Nov. 21, 1952, 242.6; Oct. 21, 1957, 243.52; Sept. 25, 1958, 244.27; Nov. 22, 1960, 244.68.

## Soda Spring Valley

8/34-28c1. Basic Magnesium Plant. Drilled unused well, diam 8 in, depth unknown, cased. MP lower edge of hole in east side of casing, 0.30 ft above lsd. Highest water level 136.77 below lsd, Feb. 1, 1960; lowest 137.72 below lsd, Mar. 20, 1950. Records available: 1949-60. Mar. 20, 1956, 137.02; Aug. 31, 137.03; Oct. 23, 1957, 137.02; Feb. 15, 1958, 136.87; Sept. 2, 137.14; Sept. 14, 1959, 136.95; Feb. 1, 1960, 136.77.

## Whiskey Flat

6/31-33b2. W. F. Merchant. Drilled unused well, diam 8 in, depth 69 ft, cased. MP top of casing, at lsd. Highest water level 42.23 below lsd, Sept. 19, 1950; lowest 44.97 below lsd, Sept. 25, 1958. Records available: 1948-51, 1957-58. No measurement made 1952-56 or 1959-60. May 11, 1948, 42.30; Nov. 28, 1949, 42.26; Jan. 19, 1950, 42.28; Sept. 19, 42.23; Mar. 12, 1951, 42.37; Oct. 21, 1957, 44.72; Sept. 25, 1958, 44.97.

Nye County

## Amargosa Desert

S16/49-18dc1. U. S. Bureau of Land Management. Formerly U. S. Government. Drilled observation well, diam 12 in, depth 348 ft, cased. Lsd 2, 375.1 ft above msl. MP top of casing collar, at lsd. Highest water level 103.10 below lsd, Feb. 12, 1955, May 24, 1956; lowest 104.73 below lsd, Sept. 15, 1959. Records available: 1953, 1955-59. No measurement made in 1960. May 24, 1956, 103.10; Dec. 6, 103.60; Aug. 28, 1957, 103.25; Feb. 15, 1958, 103.37; Sept. 3, 103.74; Sept. 15, 1959, 104.73.

S16/49-31ba1. Gordon Bettles. Drilled unused well, diam 16 in, depth 162 ft, cased. Lsd 2, 326.33 ft above msl. MP top of casing, at lsd. Highest water level 66.10 below lsd, May 7, 1952; lowest 67.10 below lsd, Sept. 15, 1959. Records available: 1952-59. No measurement made in 1960. Apr. 21, 1956, 66.40; Aug. 9, 66.44; Dec. 6, 66.35; Aug. 28, 1957, 66.42; Sept. 3, 1958, 66.46; Sept. 15, 1959, 67.10.

## Big Smoky Valley

10/43-5a1. C. J. Howard. Drilled unused well, diam 14 in, depth 70 ft, cased. MP top of casing, 0.80 ft above lsd. Highest water level 1.02 below lsd, Dec. 1, 1960; lowest 9.48 below lsd, Sept. 3, 1957. Records available: 1957-60.

10/43-5aa1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 2, 1957	9.24	May 7, 1958	8.09	May 12, 1959	8.27	Mar. 3, 1960	6.94
Sept. 3	9.48	Nov. 23	8.22	Dec. 17	6.62	Dec. 1	1.02

12/43-9cal. Carl Haas. Drilled unused well, diam 12 in, depth 190 ft, cased. MP top of casing, 2.50 ft above lsd. Highest water level 22.72 below lsd, Sept. 3, 1957; lowest 35.87 below lsd, Mar. 7, 1960. Records available: 1957-60.

May 2, 1957	31.62	May 7, 1958	32.19	May 12, 1959	33.41	Mar. 7, 1960	35.87
Sept. 3	22.72	Nov. 23	27.08	Dec. 17	34.21	Dec. 1	35.62

15/44-20ba1. A. B. Robertson. Drilled unused well, diam 6 in, depth 57 ft, cased. MP top of casing, 0.60 ft above lsd. Highest water level 24.92 below lsd, Sept. 3, 1957; lowest 39.60 below lsd, Mar. 7, 1960. Records available: 1957-60.

May 2, 1957	33.75	May 7, 1958	32.58	May 12, 1959	34.14	Mar. 7, 1960	39.60
Sept. 3	24.92	Nov. 23	31.33	Dec. 17	37.93	Dec. 1	38.61

## Pahrump Valley

[See also Clark County]

S19/53-22acd1. Stavers (State Engineer No. 31). Drilled domestic and irrigation well, diam 16 in, reported depth 540 ft, cased to 280, perforated 112-124, cemented at 280. MP top of pumpbase, at lsd. Highest water level 41.27 below lsd, Apr. 11, 1947; lowest 78.5 below lsd, August 1959. Records available: 1947-60.

Jan. 8, 1956	59.50	Feb. 28, 1957	62.66	Feb. 28, 1958	64.19	Apr. 1959	j72.0
Feb. 5	59.45	Mar. 14	63.96	Mar. 28	68.56	May	j72.5
Mar. 5	61.80	Apr. 11	66.16	Apr. 30	69.06	June	j76.0
Apr. 4	61.65	May 9	62.70	May 29	68.60	July	j78.0
May 4	61.75	June 10	68.30	June 30	71.80	Aug.	j78.5
June 4	61.65	July 8	67.68	July 28	74.76	Sept.	j78.0
July 3	61.60	Aug. 8	68.54	Aug. 29	75.89	Oct.	j75.0
Aug. 4	69.00	Sept. 20	67.47	Sept. 29	71.42	Nov.	j73.0
Sept. 4	63.50	Oct. 28	64.75	Nov. 28	66.89	Dec.	j71.0
Oct. 4	63.40	Dec. 2	63.20	Feb. 3, 1959	70.45	Jan. 1960	j72.5
Nov. 3	62.20	30	62.53	Mar.	j72.0	Feb.	j72.5
Dec. 6	61.40	Jan. 27, 1958	65.05				-

j Measurement taken from hydrograph; estimated to nearest 0.5 ft.

S20/53-24caa1. Ray Thomas (State Engineer No. 40). Drilled unused artesian well, diam 10 in, depth 570 ft, cased. MP top of casing, at lsd. Highest water level 25.10 below lsd, Mar. 17, 1945; lowest 59.24 below lsd, July 24, 1958. Records available: 1945, 1948-59. Measurement discontinued. Recorder removed Apr. 27, 1958.

Water level at noon, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	40.18	39.80	.....	42.70	42.93	41.89	44.37	45.86	44.82	42.84	.....	41.33
10	40.14	39.85	.....	42.73	42.07	44.54	45.93	44.21	.....	.....	.....	41.29
15	40.04	39.78	.....	.....	42.73	44.71	47.17	44.02	.....	.....	.....	41.28
20	40.04	39.82	.....	42.99	41.82	43.10	44.52	46.24	43.70	42.29	41.67	41.25
25	.....	42.67	43.12	42.10	43.94	45.02	46.43	43.54	.....	.....	41.55	41.16
Eom	.....	43.20	42.80	41.92	44.37	45.56	46.63	43.15	.....	41.40	41.05	.....
1957												
5	41.03	44.87	46.23	43.30	.....	42.63	48.42	50.63	50.35	49.49	44.35	.....
10	41.01	45.25	44.22	.....	.....	43.39	48.72	50.53	51.77	47.63	44.07	.....
15	41.10	45.53	45.82	.....	44.14	45.61	49.60	.....	.....	.....	43.79	.....
20	41.15	45.77	44.13	.....	43.31	46.91	49.50	.....	49.68	46.42	43.61	.....
25	43.57	45.83	43.59	.....	43.04	49.03	47.08	51.74	49.87	45.28	43.51	.....
Eom	44.52	45.93	43.13	.....	42.75	48.90	50.72	51.16	49.62	44.61	43.41	42.62
1958												
5	42.50	42.22	42.43	51.11	.....	.....	.....	.....	.....	.....	.....	.....
10	42.46	42.09	43.99	52.34	.....	.....	.....	.....	.....	.....	.....	.....
15	42.36	42.23	44.46	52.92	.....	.....	.....	.....	.....	.....	.....	.....
20	42.28	42.43	47.09	53.27	.....	.....	.....	.....	.....	.....	.....	.....
25	42.21	42.21	49.07	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eom	42.22	42.14	51.01	.....	.....	.....	.....	.....	.....	.....	.....	.....

Date	Water level	Date	Water level	Date	Water level	Date	Water level
May 23, 1958	50.38	July 24, 1958	59.24	Sept. 22, 1958	51.54	Nov. 24, 1958	48.79
June 23	55.27	Aug. 22	58.98	Oct. 23	48.83	Feb. 19, 1959	47.36

## Railroad Valley

11/57-16a1. U. S. Bureau of Land Management. Drilled stock well, diam 6 in, depth 354 ft, cased. MP top of casing, 0.50 ft above lsd. Highest water level 172.32 below lsd, Oct. 25, 1957; lowest 177.61 below lsd, Sept. 16, 1949. Records available: 1948-57. No measurement made 1958-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 13, 1948	175.2	Sept. 15, 1950	174.03	Sept. 9, 1952	173.89	Sept. 13, 1955	173.30
Apr. 25	174.94	Mar. 13, 1951	174.62	Sept. 18, 1953	174.51	Aug. 30, 1956	172.93
Sept. 16, 1949	177.61	Sept. 11	174.04	Sept. 10, 1954	173.79	Oct. 25, 1957	172.32
Mar. 27, 1950	174.40	Mar. 26, 1952	174.32				

## Ralston Valley

5/44-32bb1. Owner unknown. Dug unused water-table well, diam unknown, depth 18 ft, cribbed with wood. MP top south side of cribbing, at lsd. Highest water level 11.85 below lsd, Mar. 23, 1956; lowest 12.85 below lsd, Sept. 11, 1951. Records available: 1948-60. Mar. 23, 1956, 11.85; Aug. 30, 12.54; Oct. 22, 1957, 12.47; Sept. 2, 1958, 12.78; Sept. 14, 1959, 12.65; Dec. 1, 1960, 12.50.

Ormsby County

## Eagle Valley

15/20-17c1. State Children's Home. Drilled irrigation well, diam 18 to 12 to 10 in, depth 595 ft, cased to 595. MP concrete floor of pumphouse, 0.60 ft above lsd. Highest water level 1.84 below lsd, Mar. 13, 1952; lowest 17.90 below lsd, Aug. 26, 1960. Records available: 1946, 1948-56, 1959-60. No measurement made 1957-58. Mar. 29, 1956, 2.65; Mar. 7, 1959, 4.14; Mar. 22, 1960, 7.02; Aug. 26, 17.90.

Pershing County

## Buena Vista Valley

30/35-27b1. Neill Talcott. Drilled observation and stock well, diam 8 in, reported depth 100 ft, cased to 100, perforated 25-100. MP top of casing, 0.60 ft above lsd. Highest water level 21.91 below lsd, Jan. 7, 1948; lowest 29.28 below lsd, Sept. 27, 1959. Records available: 1948-50, 1952-59. No measurement made in 1960.

Mar. 24, 1956	29.22	Mar. 16, 1957	27.39	Mar. 21, 1958	27.95	Mar. 13, 1959	27.81
Sept. 25	27.00	Sept. 15	26.24	Sept. 10	25.68	Sept. 27	29.28

## Grass Valley

[See also Humboldt County]

33/37-24a1. Lloyd Sweeney. Dug and drilled unused well, size 6 x 8 ft to 11 ft, 10 in to 63 ft. Lsd about 4,400 ft above msl. MP top of concrete curb, 0.50 ft above lsd. Highest water level 1.80 below lsd, Apr. 24, 1946; lowest 14.74 below lsd, Sept. 22, 1955. Records available: 1945-60.

Mar. 21, 1956	12.78	Sept. 14, 1957	10.51	Mar. 9, 1959	10.95	Mar. 30, 1960	12.72
Sept. 27	11.30	Mar. 20, 1958	11.44	Sept. 14	12.66	Aug. 29	13.83
Mar. 13, 1957	12.49	Sept. 9	9.16				

34/37-22a1. J. Ballard. Drilled unused well, diam 6 in, depth 50 ft, cased. Lsd 4,320 ft above msl. MP top of casing, at lsd. Highest water level 9.31 below lsd, Mar. 21, 1956; lowest 12.97 below lsd, Sept. 20, 1951. Records available: 1946-60.

Mar. 21, 1956	9.31	Sept. 14, 1957	11.54	Mar. 9, 1959	10.71	Mar. 29, 1960	11.20
Sept. 27	12.15	Mar. 20, 1958	11.02	Sept. 14	12.46	Aug. 29	12.58
Mar. 13, 1957	11.05	Sept. 9	11.62				

## Humboldt River Valley

[See also Elko, Humboldt, and Lander Counties]

29/33-33c1. Southern Pacific RR. Co. Drilled industrial and municipal well, diam 12 in, reported depth 432 ft, cased. Lsd 4,264 ft above msl. MP bottom of hole in pump shell, 1.00 ft above lsd. Highest water level 65.16 below lsd, May 19, 1947; lowest 79.15 below lsd, Sept. 27, 1959. Records available: 1945-54, 1956-59. No measurement made in 1960. Mar. 29, 1956, 72.75; Sept. 25, 74.52; Mar. 16, 1957, 76.73; Mar. 21, 1958, 77.87; Mar. 13, 1959, 77.41; Sept. 27, 79.15.

## GROUND-WATER LEVELS, 1956-60, SOUTHWESTERN STATES

32/33-28d1. Cliff and Cecil Campbell. Humboldt. Drilled irrigation well, diam 14 in, reported depth 288 ft, cased 0-236. MP end of discharge pipe, 8.10 ft above lsd. Highest water level 34.37 below lsd, Apr. 26, 1950; lowest 39.42 below lsd, Aug. 27, 1960. Records available: 1950-54, 1956-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 21, 1956	36.81	Sept. 8, 1957	37.86	Sept. 2, 1958	38.10	Sept. 17, 1959	38.60
Sept. 27	37.34	Mar. 16, 1958	37.58	Mar. 8, 1959	37.48	Aug. 27, 1960	39.42
Mar. 11, 1957	37.32						

Washoe County

## Truckee Meadows

18/19-12db2. Paul Christman. Drilled unused artesian well in alluvium of Quaternary age, diam 14 in, depth 376 ft, cased to 299. MP top of casing, 1.00 ft above lsd. Highest water level 16.17 below lsd, Aug. 31, 1956; lowest 48.17 below lsd, Apr. 23, 1952. Records available: 1950-60.

May 16, 1950	41.91	June 26, 1953	44.66	Jan. 30, 1956	17.98	Aug. 22, 1958	17.29
June 13	39.14	July 24	44.17	Feb. 28	18.33	Sept. 23	16.62
July 17	38.04	Aug. 31	42.34	Apr. 4	19.05	Oct. 28	16.30
Aug. 14	37.93	Sept. 24	41.91	30	19.29	Nov. 22	17.05
Sept. 18	36.30	Oct. 26	41.88	May 31	18.12	Dec. 29	18.78
Oct. 16	35.50	Nov. 25	42.73	June 28	17.40	Jan. 27, 1959	18.94
Nov. 13	36.29	Dec. 30	45.09	July 30	16.59	Feb. 25	19.72
Dec. 18	38.38	Jan. 29, 1954	46.39	Aug. 31	16.17	Mar. 25	20.48
Jan. 2, 1951	38.64	Feb. 26	46.93	Nov. 30	17.44	Apr. 29	20.16
Mar. 27	41.98	Mar. 24	47.64	Dec. 26	18.32	June 1	19.03
Apr. 24	44.46	Apr. 29	47.89	Jan. 28, 1957	19.08	29	18.55
May 28	45.19	May 28	47.01	Feb. 27	19.66	July 30	18.04
July 24	43.22	June 30	46.12	Mar. 26	20.24	Aug. 26	17.50
Aug. 27	41.74	July 26	44.87	Apr. 30	20.14	Oct. 5	16.88
Sept. 25	40.87	Aug. 27	43.62	May 28	18.73	29	16.87
Jan. 28, 1952	44.4	Sept. 27	42.55	June 28	17.89	Nov. 30	18.06
Feb. 27	46.15	Nov. 1	42.25	July 30	17.25	Dec. 29	19.23
Mar. 21	47.38	Dec. 29	45.10	Aug. 30	16.91	Jan. 26, 1960	20.06
Apr. 23	48.17	Jan. 27, 1955	46.52	Sept. 30	16.37	Feb. 23	20.38
June 24	45.83	Mar. 22	47.46	Oct. 28	16.67	Mar. 25	21.24
July 21	44.28	Apr. 29	47.92	Dec. 2	17.98	Apr. 27	20.93
Aug. 22	44.07	June 1	46.98	23	18.44	May 25	19.75
Sept. 19	42.90	27	45.49	Jan. 29, 1958	19.49	June 23	18.47
Oct. 22	39.66	July 28	44.58	Mar. 4	19.94	July 22	18.14
Nov. 25	40.48	Sept. 1	27.74	Apr. 2	20.22	Sept. 30	17.04
Dec. 18	41.10	30	21.51	30	20.41	Oct. 26	17.06
Feb. 25, 1953	44.31	Nov. 1	18.90	May 28	19.58	Nov. 29	18.36
Apr. 28	46.05	Dec. 1	18.87	July 29	17.88	Dec. 27	19.12
May 22	45.28						

18/20-7dc1. Mrs. Martin Estate. Sierra Manor subdivision. Drilled unused artesian well in alluvium of Quaternary age, diam 12 in, reported depth 203 ft, cased. Lsd 4,568 ft above msl. MP top of steel plate casing cover, 1.00 ft above lsd. Highest water level 7.32 below lsd, Oct. 28, 1957; lowest 15.88 below lsd, Apr. 18, 1950. Records available: 1949-60.

Jan. 30, 1956	11.19	June 28, 1957	10.14	Sept. 23, 1958	8.55	Nov. 30, 1959	9.51
Feb. 28	11.90	July 30	9.91	Oct. 28	7.78	Dec. 29	9.69
Apr. 4	12.83	Aug. 30	9.49	Nov. 22	8.75	Jan. 26, 1960	11.68
30	13.46	Sept. 30	7.98	Dec. 29	10.24	Feb. 23	12.44
May 31	11.67	Oct. 28	7.32	Jan. 27, 1959	11.20	Mar. 25	13.40
June 28	10.35	Dec. 2	9.29	Feb. 25	12.13	Apr. 27	13.50
July 30	10.10	26	10.13	Mar. 25	12.88	May 25	10.88
Aug. 31	8.62	Jan. 29, 1958	11.30	Apr. 29	12.58	June 23	11.10
Nov. 30	8.80	Mar. 4	12.42	June 1	11.31	July 22	10.88
Dec. 26	9.78	Apr. 2	13.19	30	10.77	Sept. 4	9.60
Jan. 28, 1957	10.15	30	13.77	July 30	10.50	30	9.24
Feb. 27	11.60	May 28	11.38	Aug. 26	10.09	Oct. 26	8.45
Mar. 26	12.49	June 30	11.17	Oct. 5	8.17	Nov. 29	9.82
Apr. 30	12.82	July 29	10.48	29	8.45	Dec. 27	10.94
May 28	10.88	Aug. 22	9.63				

19/19-11b1. Reno High School. Fifth and West Sts. Drilled unused water-table well, diam 4 in, depth 49 ft, cased. MP top of iron curb, 0.30 ft above lsd. Highest water level 28.48 below lsd, Aug. 3, 1949; lowest 33.10 below lsd, Feb. 28, 1950. Records available: 1949-60. Measurement discontinued.

19/19-11b1--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30, 1956	30.34	Apr. 30, 1957	32.85	May 28, 1958	30.60	June 30, 1959	30.83
Feb. 28	30.99	May 28	31.78	June 30	29.68	July 30	29.19
Apr. 2	31.89	June 28	30.28	July 29	29.31	Aug. 26	30.26
30	32.29	July 30	29.37	Aug. 22	29.61	Oct. 5	30.55
May 31	30.89	Aug. 30	29.43	Sept. 23	29.81	Oct. 28	30.89
June 28	29.58	Sept. 30	29.69	Oct. 28	30.53	Nov. 30	31.47
July 30	29.47	Oct. 28	30.39	Nov. 22	31.46	Dec. 29	32.37
Aug. 31	29.92	Nov. 30	31.54	Dec. 29	32.50	Jan. 26, 1960	32.77
Nov. 30	31.68	Dec. 26	32.37	Jan. 27, 1959	32.77	Feb. 23	32.76
Dec. 26	32.32	Jan. 29, 1958	32.78	Feb. 25	32.88	Mar. 25	32.76
Jan. 28, 1957	32.73	Mar. 4	32.82	Mar. 25	32.87	Apr. 27	32.77
Feb. 27	32.80	Apr. 2	32.79	Apr. 29	32.94	May 25	31.82
Mar. 26	32.83						

19/19-24cc1. J. B. Linabary. Drilled unused well, diam 6 in, depth 89 ft, cased to 89. MP top of casing, 2.50 ft below lsd. Highest water level 27.45 below lsd, Aug. 27, 1959; lowest 30.80 below lsd, Mar. 29, 1960. Records available: 1956-60.

Dec. 14, 1956	29.38	Oct. 15, 1957	28.40	Aug. 15, 1958	28.48	June 30, 1959	28.61
Dec. 13, 1957	29.78	Dec. 20	29.69	Nov. 28	28.59	Aug. 27	27.45
Apr. 15	30.52	Feb. 6, 1958	30.64	Dec. 29	29.61	Mar. 29, 1960	30.80
June 12	29.32	Apr. 15	30.63	Apr. 15, 1959	30.35	Aug. 25	28.79
Aug. 9	28.30	June 10	29.35				

19/20-30bc2. Edward Peckham. Drilled unused well, diam 12 in, depth 120 ft, cased to 120. MP top of casing, 0.80 ft above lsd. Highest water level 23.42 below lsd, Sept. 28, 1948; lowest 28.60 below lsd, Apr. 14, 1959. Records available: 1948, 1956-60.

Sept. 28, 1948	23.42	Aug. 9, 1957	25.48	June 9, 1958	27.59	June 30, 1959	26.72
Dec. 11, 1956	26.52	Oct. 14	25.46	Aug. 15	26.70	Aug. 27	25.70
Feb. 12, 1957	27.69	Dec. 13	26.59	Oct. 27	26.34	Mar. 28, 1960	28.52
Apr. 12	28.37	Feb. 6, 1958	27.81	Dec. 29	27.32	Aug. 23	25.98
June 11	27.05	Apr. 14	28.52	Apr. 14, 1959	28.60		

19/20-33bd1. Howard Hamilton. Drilled domestic well, diam 6 in, depth 70 ft, cased. MP top of casing, 0.40 ft above lsd. Highest water level 8.89 below lsd, Feb. 6, 1958; lowest 10.42 below lsd, June 30, 1959. Records available: 1957-60.

Apr. 25, 1957	9.63	Feb. 6, 1958	8.89	Oct. 27, 1958	9.51	June 30, 1959	10.42
June 11	9.77	Apr. 14	9.08	Dec. 29	9.76	Aug. 27	9.92
Oct. 14	9.33	June 9	9.53	Apr. 14, 1959	9.79	Mar. 28, 1960	9.75
Dec. 13	9.36	Aug. 14	9.57				

#### White Pine County

##### Newark Valley

[See also Lincoln County]

18/55-31c1. Formerly 18/55-31d1. Owner unknown. Dug stock water-table well, diam 36 in, depth 43 ft, cased with concrete. MP top of concrete curb, 1.00 ft above lsd. Highest water level 33.19 below lsd, Sept. 15, 1954, Sept. 15, 1955; lowest 34.65 below lsd, Dec. 21, 1946. Records available: 1946-59. No measurement made in 1960. Mar. 26, 1956, 33.23; Aug. 28, 33.27; Sept. 5, 1957, 33.50; Sept. 4, 1958, 33.59; Dec. 18, 1959, 33.64.

19/56-30d2. Don Eldridge. Dug stock water-table well, diam 42 in, depth 37 ft, cribbed with concrete. Lsd 5,900 ft above msl. MP top of concrete curb, 1.50 ft above lsd. Highest water level 31.63 below lsd, Oct. 1, 1952; lowest 35.31 below lsd, Dec. 21, 1959. Records available: 1948-60. Mar. 26, 1956, 31.87; Sept. 5, 1957, 31.91; Sept. 4, 1958, 32.32; Dec. 21, 1959, 35.31; Aug. 24, 1960, 32.67.

20/55-10d1. U. S. Bureau of Land Management. Dug stock water-table well, diam 36 in, depth 22 ft, cased with concrete. Lsd 5,871 ft above msl. MP top of plank well cover, 1.00 ft above lsd. Highest water level 8.08 below lsd, Mar. 24, 1949; lowest 9.48 below lsd, Dec. 21, 1959. Records available: 1948-59. No measurement made in 1960. Mar. 26, 1956, 9.16; Aug. 28, 9.40; Sept. 5, 1957, 9.34; Sept. 4, 1958, 9.26; Dec. 21, 1959, 9.48.

21/55-10c1. Formerly 21/55-9b1. R. W. Hooper. Dug domestic water-table well, size 5 x 5 ft, depth 34 ft, cribbed with wood. Lsd 5,950 ft above msl. MP top of wood cribbing, 3.50 ft above lsd. Highest water level 10.67 below lsd, Mar. 26, 1956; lowest 19.26 below lsd, Sept. 5, 1957. Records available: 1948-59. No measurement made in 1960. Mar. 26, 1956, 10.67; Aug. 28, 18.89; Sept. 5, 1957, 19.26; Sept. 4, 1958, 19.08; Dec. 21, 1959, 18.88.

## Spring Valley

13/67-8d1. A. Schaurman. Dug stock water-table well, diam 36 in, reported depth 45 ft, cased. MP top of concrete curb, 2.50 ft above lsd. Highest water level 11.60 below lsd, Mar. 4, 1953 (previously reported 11.70 below lsd, Mar. 29, 1949); lowest 15.11 below lsd, Sept. 10, 1952. Records available: 1947-57, 1959-60. No measurement made in 1958. Aug. 29, 1956, 14.68; Sept. 5, 1957, 13.84; Dec. 19, 1959, 13.37; Sept. 27, 1960, 14.30.

15/66-13d1. J. P. Johanson. Drilled domestic well, diam 6 in, depth 82 ft, cased. MP lowest point of break on east side of pumpbase, 1.00 ft above lsd (since Dec. 19, 1959). Highest water level 13.68 below lsd, Sept. 10, 1952; lowest 23.29 below lsd, Sept. 27, 1960. Records available: 1947, 1949-57, 1959-60. No measurement made in 1958. Mar. 22, 1956, 17.75; Aug. 29, 20.58; Sept. 5, 1957, 19.34; Dec. 19, 1959, 22.21; Sept. 27, 1960, 23.29.

17/68-6d1. U. S. Bureau of Land Management. Dug stock water-table well, diam 4 ft, depth 28 ft, cribbed with concrete. MP top of concrete curb, 2.50 ft above lsd. Highest water level 21.69 below lsd, Mar. 18, 1950; lowest 26.42 below lsd, Sept. 27, 1960. Records available: 1948-55, 1957, 1959-60. No measurement made in 1956 or 1958. Sept. 15, 1957, 25.29; Dec. 18, 1959, 25.41; Sept. 27, 1960, 26.42.

## Steptoe Valley

15/64-7a1. Lloyd Sorenson. Drilled irrigation well, diam 16 in, reported depth 200 ft, cased. MP top of casing, 1.00 ft above lsd. Highest water level 32.70 below lsd, Mar. 4, 1953; lowest 39.06 below lsd, Mar. 14, 1951. Records available: 1948-57, 1959. No measurement made in 1958 and 1960. Aug. 29, 1956, 34.18; Sept. 4, 1957, 33.82; Dec. 19, 1959, 37.42.

16/63-1b1. Owner unknown. Drilled unused well, diam 6 in, depth unknown, cased. MP top of cap on casing, 0.80 ft above lsd. Highest water level 59.10 below lsd, Mar. 10, 1954; lowest 71.77 below lsd, Sept. 27, 1960. Records available: 1949-57, 1959-60. No measurement made in 1958. Mar. 26, 1956, 61.06; Aug. 28, 63.08; Sept. 4, 1957, 66.32; Dec. 19, 1959, 71.07; Sept. 27, 1960, 71.77.

19/63-12a1. U.S. Geol. Survey. Drilled test well in sand and gravel, diam 12 to 8 in, depth 915 ft, cased, 12-in 0-181, 8-in 0-540. MP top of concrete curb, 1.60 ft above lsd. Highest water level 9.6 below lsd, 1918 (previously reported 13.81 below lsd, Mar. 4, 1953); lowest 21.20 below lsd, July 5, 1949. Records available: 1918, 1949-57, 1959. No measurement made in 1958 and 1960. Mar. 26, 1956, 14.57; Aug. 28, 14.75; Sept. 4, 1957, 15.00; Dec. 19, 1959, 15.20.

20/64-32c2. U.S. Geol. Survey. Drilled test well, diam 10 in, depth 110 ft, cased. MP top of casing, 1.00 ft above lsd. Highest water level 13.45 below lsd, Mar. 9, 1955; lowest 14.72 below lsd, Sept. 4, 1957. Records available: 1918, 1949-57, 1959. No measurement made in 1958 or 1960. Sept. 26, 1956, 13.53; Sept. 4, 1957, 14.72; Dec. 19, 1959, 13.99.

## White River Valley

[See also Nye County]

11/61-35a1. Public domain. Drilled stock well, diam 6 in, depth unknown, cased. MP top of casing, 0.40 ft above lsd (since Aug. 30, 1956). Highest water level 10.49 below lsd, Sept. 18, 1953; lowest 13.08 below lsd, Sept. 11, 1951. Records available: 1947-57, 1959. No measurement made in 1958 and 1960. Aug. 30, 1956, 12.76; Sept. 4, 1957, 12.74; Dec. 20, 1959, 12.66.

12/61-34a1. U. S. Bureau of Land Management. Drilled stock well, diam 7 in, depth 72 ft, cased. MP top of casing collar, 1.50 ft above lsd. Highest water level 57.65 below lsd, Dec. 15, 1949; lowest 62.43 below lsd, Dec. 20, 1959. Records available: 1947-57, 1959-60. No measurement made in 1958. Aug. 30, 1956, 60.42; Sept. 4, 1957, 60.60; Dec. 20, 1959, 62.43; Sept. 27, 1960, 61.95.

12/62-18d1. U.S. Geol. Survey. Drilled test and observation well, diam 6 in, depth 108 ft, cased to 105. MP top of casing collar, 0.50 ft above lsd. Highest water level 43.56 below lsd, Sept. 9, 1952; lowest 50.73 below lsd, Dec. 18, 1947. Records available: 1947-53, 1955-57, 1959. No measurement made in 1958 and 1960. Aug. 30, 1956, 47.84; Sept. 4, 1957, 48.11; Dec. 20, 1959, 47.41.

12/62-33a5. Wayne Gardner. Lund. Dug domestic water-table well, size 4 x 4 ft, depth 31 ft, cased with concrete. Lsd 5, 578.45 ft above msl. MP top edge of south side of iron manhole, 0.50 ft above lsd. Highest water level 17.56 below lsd, Dec. 20, 1959; lowest 25.44 below lsd, Mar. 15, 1950. Records available: 1947-57, 1959-60. No measurement made in 1958. Mar. 22, 1956, 22.20; Aug. 30, 24.97; Sept. 4, 1957, 23.13; Dec. 20, 1959, 17.56; Sept. 27, 1960, 23.31.

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## NEW MEXICO

By H. O. Reeder and W. C. Ballance

The observation-well program, which has been in progress in parts of New Mexico since 1925, was continued during 1956 through 1960 in cooperation with the State Engineer of New Mexico. However, the total observation-well program is much more extensive than the wells covered in this report. Other data collected are published annually in the Technical Report series of the State Engineer. Measurements of water levels in observation wells in the Virden Valley in Hidalgo County were made by the Arizona office of the U. S. Geological Survey. Figure 6 shows the location of observation wells included in this report.

### Well-Numbering System

The system of numbering wells in New Mexico, except the thermal wells in the Truth or Consequences area in Sierra County, is based on the common subdivision of public lands into sections. The well number is based on the New Mexico principal meridian and base line except in the Sangre de Cristo Grant in Taos County, where it is based on a system of sectionized land used in Colorado and extended into that part of the land grant in New Mexico.

The well number, in addition to designating the well, locates its position to the nearest 10-acre tract in the land net. The number is divided by periods into four segments. The first segment denotes the township north or south of the New Mexico base line; the second, the range east or west of the New Mexico principal meridian; the third, the section; and the fourth, the particular tract in which the well is situated. In a county where wells are situated both north and south of the base line, such as Roosevelt County, an N is added to the first segment of the well number if the well is north of the base line. Similarly, in a county where wells are both east and west of the meridian, an E is added to the second segment of the number if the well is east of the meridian. In counties entirely within one quadrant of the principal meridian and base line, the direction north or south of the base line or east or west of the meridian is not given.

The fourth segment of the number, which consists of three digits, denotes the particular 10-acre tract in which the well is situated. For this purpose, the section is divided into four quarters, numbered 1, 2, 3, and 4, in the normal reading order, for the northwest, northeast, southwest, and southeast quarters. The first digit of the fourth segment gives the quarter section. Similarly, the quarter section is divided into four 40-acre tracts numbered in the same manner, and the second digit denotes the 40-acre tract. Finally, the 40-acre tract is divided into four 10-acre tracts, and the third digit denotes the 10-acre tract. Thus, well 12.36.24.342 in Lea County is located in the NE $\frac{1}{4}$ SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 24, T. 12 S., R. 36 E. If a well cannot be located within a 10-acre tract, a zero is used as the third digit, and if it cannot be located within a 40-acre tract, zeros are used for both the second and third digits. If the well cannot be located more closely than the section, the fourth segment of the well number is omitted. When it becomes possible to locate more accurately a well in whose number zeros have been used, the proper digit or digits are substituted for the zeros. In Water-Supply Paper 911 and earlier reports, the digits corresponding to unknown 10-acre and 40-acre tracts were simply omitted; but this practice caused some confusion in cataloging the wells. In Water-Supply Paper 941 and subsequent reports, wells whose numbers end in one or two zeros correspond to wells whose numbers in earlier reports are the same except for the omission of such zeros. Letters a, b, c, etc., are added to the last segment to designate the second, third, fourth, and succeeding wells in the same 10-acre tract.

### Well Descriptions and Water-Level Measurements

All measurements of water level in this report are given in feet above or below land-surface datum, which approximates the land surface at the well.

Bernalillo County

## Albuquerque Area

9. 2E. 34. 322. Denison Farm. Drilled irrigation water-table well in Santa Fe Group of middle (?) Miocene to Pleistocene (?) age, diam 12 in, depth unknown. MP top of  $\frac{3}{4}$  in hole in north side of pumpbase, 1.60 ft above lsd. Highest water level 12.47 below lsd, July 8, 1957; lowest 15.08 below lsd, Jan. 24, 1957. Records available: 1956-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 11, 1956	14.45	Jan. 29, 1958	14.46	Feb. 25, 1959	13.90	Feb. 2, 1960	13.77
Oct. 9	14.82	Mar. 11	14.49	Mar. 18	13.82	Mar. 3	13.89
Nov. 13	14.88	Apr. 21	14.15	Apr. 15	13.14	Apr. 5	13.68
Dec. 11	14.98	May 11	13.96	May 6	14.97	May 3	13.46
Jan. 24, 1957	15.08	June 10	13.64	June 3	12.90	June 6	13.05
Mar. 19	14.96	July 10	13.40	July 7	13.03	July 12	12.91
May 7	14.59	Aug. 11	13.59	Aug. 18	13.32	Aug. 2	13.18
June 7	14.48	Sept. 5	13.34	Sept. 10	13.63	Sept. 7	13.61
July 8	12.47	Oct. 23	13.49	Oct. 7	13.67	Oct. 19	13.44
Aug. 1	13.66	Nov. 20	13.52	Nov. 9	13.44	Nov. 10	13.44
Sept. 19	14.03	Dec. 12	13.61	Dec. 1	13.57	Dec. 13	13.54
Oct. 29	13.79	Jan. 23, 1959	13.81	Jan. 5, 1960	13.68		

10. 2E. 12. 223. City of Albuquerque. Drilled observation water-table well in alluvium and Santa Fe Group of middle (?) Miocene to Pleistocene (?) age, diam 6 in. MP top north side of casing, 6.00 ft above lsd. Highest water level 12.10 below lsd, Apr. 16, 1953; lowest 28.28 below lsd, Dec. 12, 1960. Records available: 1953, 1957-60. No measurement made 1954-56.

Apr. 16, 1953	12.10	Apr. 22, 1958	20.36	Mar. 18, 1959	21.55	Feb. 2, 1960	17.30
Jan. 31, 1957	15.54	May 11	23.48	Apr. 15	25.27	Mar. 3	17.88
Mar. 21	15.92	June 10	26.10	May 6	22.68	Apr. 5	24.05
May 9	17.40	July 10	27.97	June 3	24.89	May 3	25.50
June 7	26.43	Aug. 11	25.87	July 7	26.00	July 6	26.61
July 8	25.52	Sept. 5	25.99	Aug. 18	25.82	12	27.18
Aug. 1	20.50	Oct. 23	16.53	Sept. 10	24.65	Sept. 7	28.27
Sept. 19	27.65	Nov. 20	15.37	Oct. 7	23.92	Oct. 19	24.26
Oct. 30	19.37	Dec. 12	17.85	Nov. 9	24.72	Nov. 9	23.95
Jan. 30, 1958	14.43	Jan. 23, 1959	21.02	Dec. 1	18.84	Dec. 12	28.28
Mar. 11	14.22	Feb. 25	19.33	Jan. 5, 1960	25.03		

10. 2E. 24. 413. City of Albuquerque. Drilled observation water-table well in alluvium and Santa Fe Group of middle (?) Miocene to Pleistocene (?) age, diam 6 in. MP top east side of casing, 5.50 ft above lsd. Highest water level 20.69 below lsd, Nov. 13, 1956; lowest 22.09 below lsd, Nov. 10, Dec. 13, 1960. Records available: 1956-60.

Nov. 13, 1956	20.69	May 11, 1958	21.80	Apr. 15, 1959	21.70	Mar. 3, 1960	21.71
Jan. 31, 1957	21.01	June 10	21.86	May 6	21.66	Apr. 5	21.70
Mar. 21	21.09	July 10	21.86	June 3	21.65	May 3	21.70
May 7	21.19	Aug. 11	21.85	July 7	21.67	June 6	21.78
June 7	21.17	Sept. 5	21.89	Aug. 18	21.70	July 12	21.82
July 8	21.25	Oct. 23	22.02	Sept. 10	21.72	Aug. 2	21.90
Aug. 1	21.30	Nov. 20	22.06	Oct. 7	21.78	Sept. 7	21.93
Sept. 19	21.48	Dec. 12	22.04	Nov. 9	21.77	Oct. 19	22.02
Jan. 29, 1958	21.67	Jan. 23, 1959	21.94	Dec. 1	21.79	Nov. 10	22.09
Mar. 11	20.74	Feb. 25	21.82	Jan. 5, 1960	21.75	Dec. 13	22.09
Apr. 21	21.78	Mar. 18	21.72	Feb. 2	21.72		

10. 4E. 3. 242. Mr. Gutierrez. Drilled unused water-table well in Santa Fe Group of middle (?) Miocene to Pleistocene (?) age, diam 6 in, depth 320 ft. MP top north side of steel pipe clamp, 1.50 ft above lsd. Highest water level 252.37 below lsd, Dec. 18, 1956; lowest 257.01 below lsd, Dec. 12, 1960. Records available: 1956-60.

Jan. 26, 1956	255.35	Apr. 22, 1958	253.90	Apr. 15, 1959	255.07	Mar. 3, 1960	256.16
Dec. 18	252.37	May 12	254.19	May 6	255.20	Apr. 5	256.24
Jan. 25, 1957	252.55	June 12	254.18	July 7	255.48	May 3	256.25
Mar. 22	252.59	July 11	254.19	Aug. 19	255.60	June 6	256.35
May 14	252.85	Aug. 12	254.46	Sept. 10	255.60	July 12	256.46
June 6	252.97	Sept. 8	254.51	Oct. 7	255.61	Aug. 2	256.50
July 9	252.80	Nov. 21	254.76	Nov. 9	255.75	Sept. 6	255.85
Aug. 2	253.03	Dec. 12	254.64	Dec. 1	255.92	Oct. 18	257.12
Sept. 20	253.32	Jan. 26, 1959	256.00	Jan. 6, 1960	255.94	Nov. 10	256.77
Oct. 31	253.37	Feb. 25	254.98	Feb. 2	255.74	Dec. 12	257.01
Jan. 28, 1958	253.85	Mar. 18	255.00				

m Measurement uncertain.

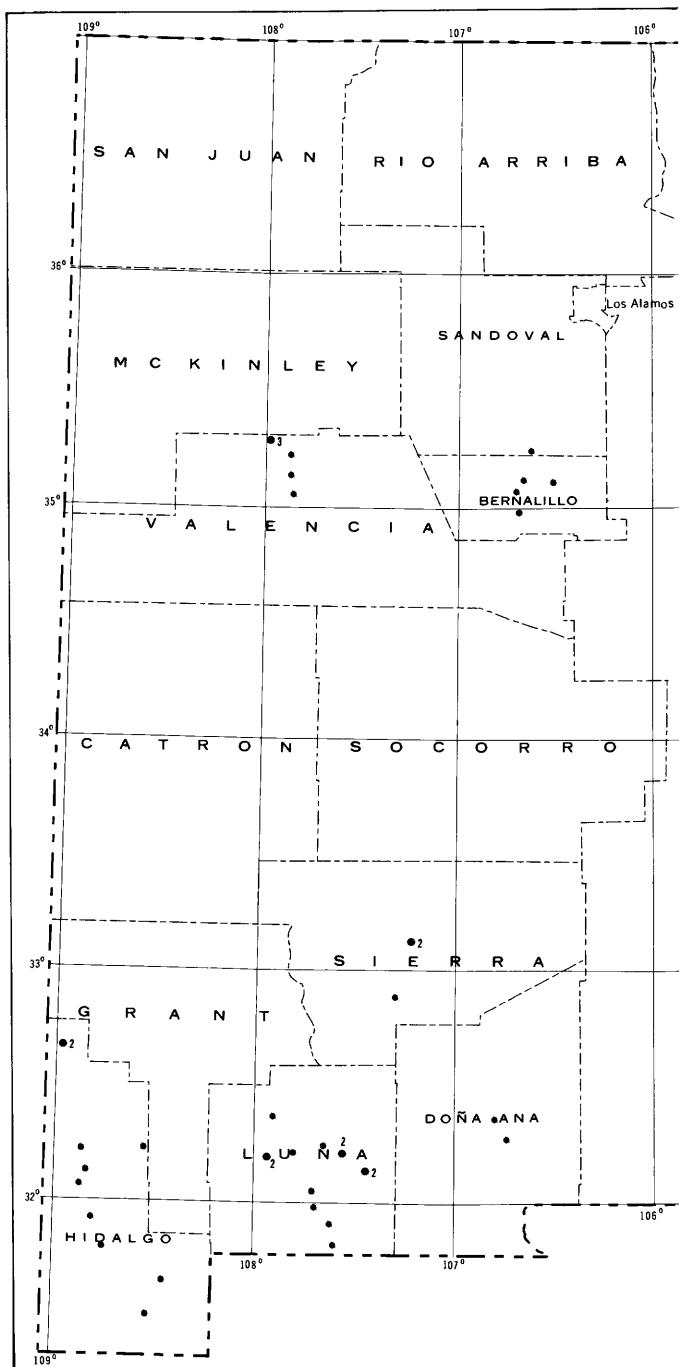
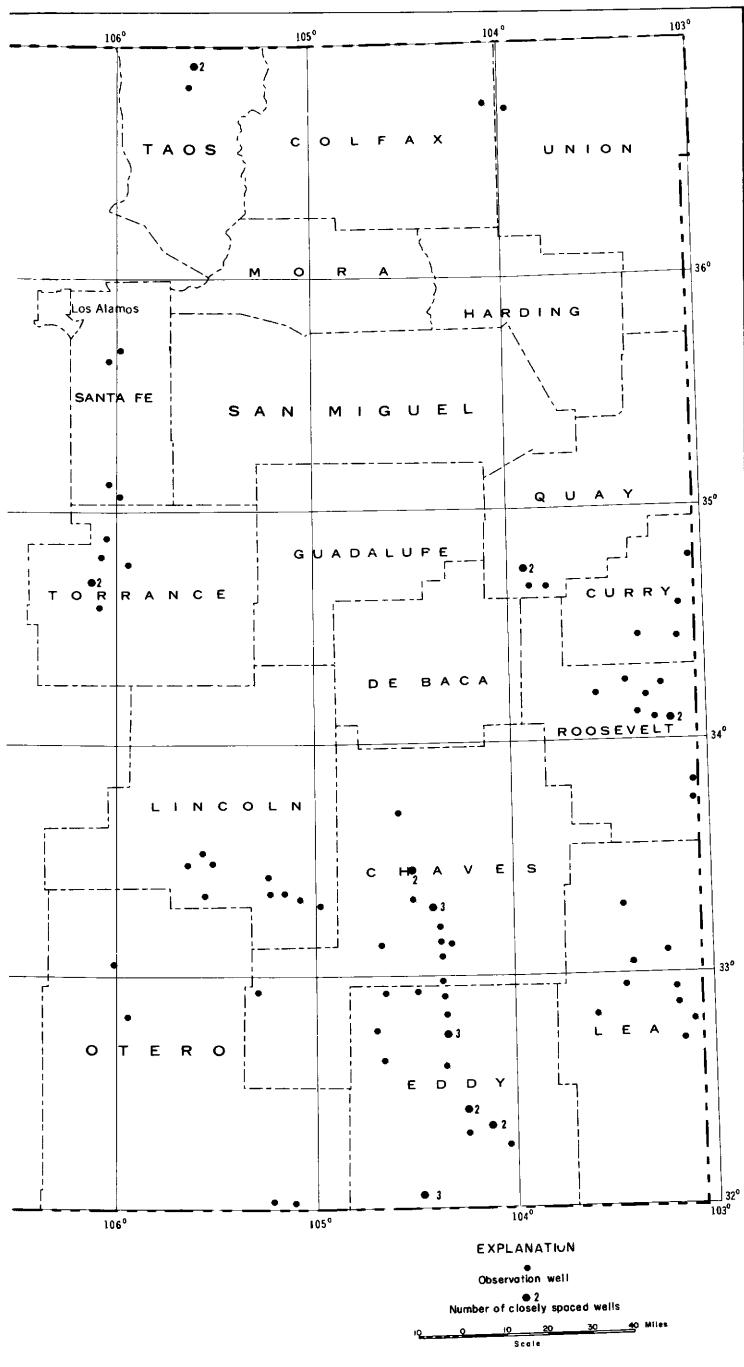


Figure 6. --Location of observation



wells in New Mexico, 1956-60.

Chaves County

## Roswell Basin

7. 23. 23. 242. Jess Corn. Drilled irrigation artesian well in San Andres Limestone of Permian age, diam 14 in, depth 426 ft. Lsd 3,814 ft above msl. MP lower outer edge of mouth of discharge pipe, 3,711 ft above lsd. Highest water level 239.83 below lsd, May 26, 1951; lowest 265.64 below lsd, Mar. 16, 1960. Records available: 1951-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 10, 1956	250.17	Mar. 7, 1957	257.85	May 13, 1958	262.24	May 18, 1959	262.59
Mar. 5	249.28	May 2	255.71	July 16	(a)	July 13	264.39
May 3	250.61	July 19	(a)	Aug. 25	(a)	Sept. 15	(a)
July 13	(a)	Sept. 16	(a)	Sept. 19	260.59	Nov. 18	(b)
Sept. 13	(a)	Nov. 19	263.94	Nov. 14	261.93	Jan. 4, 1960	262.89
Nov. 2	(a)	Jan. 7, 1958	259.27	Jan. 5, 1959	257.67	Mar. 16	265.64
Jan. 23, 1957	254.49	Mar. 11	260.19	Mar. 16	257.59		

a Well being pumped.

b Well pumped recently.

10. 24. 9. 333. Berrendo. Drilled observation artesian well in San Andres Limestone of Permian age, diam 10 in, depth 258 ft, cased 0-258, depth to artesian aquifers 170, 241. Lsd 3,586.16 ft above msl. MP upper surface of recorder-shelter floor, 0.83 ft above lsd. Highest water level 11.29 below lsd, Dec. 19-20, 1926; lowest 53.48 below lsd, Sept. 7, 1960. Records available: 1926-60. For additional measurements, see Reeder and others (1960b) (1960c).

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	30.36	30.07	29.84	35.28	35.54	37.14	40.12	42.28	44.85	41.31	38.47	36.80
10	30.44	29.89	30.24	35.62	35.65	38.52	42.44	43.38	44.29	40.90	38.28	36.46
15	30.36	29.60	31.05	35.38	35.64	39.14	41.68	44.17	43.38	40.37	38.09	36.18
20	30.32	29.55	.....	35.51	35.82	38.83	43.52	43.28	42.88	39.67	37.82	35.93
25	30.48	29.72	33.56	35.52	36.14	38.84	42.02	42.75	42.50	39.35	37.38	35.72
Eom	30.49	29.75	35.04	35.41	36.58	39.69	41.65	42.58	42.18	38.87	37.08	35.43

## 1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	35.49	35.17	35.33	40.11	39.62	40.92	46.27	45.36	46.03	44.34	40.10	37.81
10	35.37	35.28	36.02	41.15	39.65	41.56	46.05	47.36	47.01	43.52	39.67	37.67
15	35.38	35.45	36.44	40.33	39.34	42.04	45.95	46.72	46.36	42.65	39.24	37.47
20	35.53	35.22	36.85	41.64	40.00	42.51	45.32	45.79	46.20	41.88	38.88	37.24
25	35.65	35.12	37.30	40.48	40.53	43.13	47.09	45.89	45.18	41.25	38.52	37.03
Eom	35.38	35.27	40.63	41.22	42.48	43.83	45.67	45.87	44.40	40.56	38.20	36.95

## 1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	36.62	35.42	35.22	38.23	39.30	41.52	45.15	46.48	46.93	42.60	39.39	37.62
10	36.20	35.44	35.18	38.80	39.20	42.22	46.23	47.39	47.25	41.99	39.03	37.45
15	36.03	35.38	35.39	38.40	38.74	43.75	46.95	48.18	45.88	41.35	38.62	37.28
20	35.76	35.48	36.32	38.30	38.41	44.45	46.17	49.80	45.62	40.83	38.43	37.21
25	35.57	35.22	36.95	38.55	39.18	43.68	47.15	48.25	45.53	40.38	38.14	37.02
Eom	35.52	35.32	37.59	39.37	40.27	43.10	46.76	46.64	43.59	39.79	37.84	36.75

## 1959

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	36.59	36.87	38.67	42.62	43.29	45.92	45.80	47.82	47.59	45.87	43.55	41.96
10	36.57	37.12	39.03	42.60	41.99	44.68	46.89	48.87	50.35	45.28	43.02	41.65
15	36.53	37.17	39.50	42.13	41.88	44.29	45.39	49.92	50.17	44.85	42.70	41.40
20	36.32	37.52	40.96	42.02	41.45	44.82	44.50	48.17	49.04	44.46	42.47	41.03
25	36.48	37.90	41.97	42.26	41.91	45.42	44.55	46.79	48.42	44.19	42.22	40.62
Eom	36.88	38.43	41.98	43.45	43.64	45.61	46.50	46.48	47.81	43.88	42.03	40.30

## 1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	40.15	38.65	38.70	47.29	45.93	47.33	49.23	50.00	50.62	47.63	44.17	42.13
10	39.83	38.47	39.24	46.63	46.13	46.13	45.33	50.49	50.70	47.07	43.67	41.74
15	39.60	38.50	41.07	46.28	46.17	45.17	44.45	50.30	51.64	46.69	.....	41.47
20	39.41	38.40	41.46	46.37	46.81	44.90	44.07	50.68	50.00	45.73	.....	41.20
25	39.08	38.41	43.19	46.01	48.43	47.45	44.23	50.23	50.00	45.07	42.67	40.87
Eom	38.82	38.51	44.97	46.88	48.93	49.18	46.86	49.33	48.11	44.47	42.52	40.55

## 1960

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12, 1956	77.73	Sept. 7, 1956	101.52	Sept. 16, 1957	104.63	July 21, 1958	b101.15
Mar. 9	79.75	Nov. 29	88.55	Jan. 9, 1958	83.88	Aug. 27	b103.30
May 7	88.75	Jan. 28, 1957	84.43	Mar. 11	83.05	Sept. 18	100.88
July 16	97.75	May 7	92.10	May 13	90.05	Nov. 18	87.35

11. 24. 28. 113--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 27, 1959	84.37	July 15, 1959	100.25	Jan. 8, 1960	88.35	July 19, 1960	97.10
Mar. 16	91.10	Sept. 15	107.00	Mar. 21	93.78	Sept. 29	b105.00
May 18	92.69	Nov. 19	93.08	May 17	101.10	Nov. 16	b92.82

b Well pumped recently.

11. 25. 29. 444. G. C. Wheeler. Drilled unused water-table well in valley fill, diam 6 in, depth 30 ft, cased to 30. MP top of casing, 0.92 ft above lsd. Highest water level 3.14 below lsd, Mar. 15, 1942; lowest 15.49 below lsd, Nov. 3, 1948. Records available: 1937-60.

Jan. 13, 1956	10.61	May 7, 1957	13.67	Aug. 26, 1958	14.98	Sept. 17, 1959	7.10
Mar. 8	10.77	July 11	12.57	Sept. 19	9.18	Jan. 11, 1960	9.25
May 7	10.51	Sept. 16	11.84	Nov. 18	9.94	Mar. 21	12.28
July 16	11.98	Nov. 20	12.83	Jan. 8, 1959	12.13	May 17	10.80
Sept. 7	13.65	Jan. 9, 1958	13.58	Mar. 17	10.38	July 19	7.48
Nov. 15	12.33	Mar. 13	12.71	May 19	8.08	Sept. 20	10.65
Jan. 17, 1957	12.92	May 13	13.48	July 16	8.86	Nov. 17	9.43
Mar. 8	12.08	July 17	12.56				

12. 25. 9. 422. Cumberland townsite. Drilled unused water-table well in valley fill, diam 10 in, reported depth 90 ft. MP top of  $\frac{3}{4}$ -in pipe collar, 0.62 ft above lsd. Highest water level 38.64 below lsd, Oct. 16, 1941; lowest 73.96 below lsd, Sept. 20, 1960. Records available: 1937-60.

Jan. 18, 1956	62.68	May 7, 1957	67.60	Aug. 25, 1958	71.90	Nov. 19, 1959	68.96
Mar. 8	61.79	July 11	70.00	Sept. 18	71.90	Jan. 11, 1960	67.05
May 7	65.07	Sept. 16	71.55	Nov. 18	67.78	Mar. 21	67.14
July 16	68.04	Nov. 20	69.72	Jan. 8, 1959	66.70	May 17	69.26
Sept. 7	69.75	Jan. 10, 1958	67.82	Mar. 17	65.35	July 19	68.91
Nov. 15	67.98	Mar. 13	66.15	May 19	66.80	Sept. 20	73.96
Jan. 18, 1957	66.23	May 14	67.17	July 14	68.34	Nov. 17	69.75
Mar. 8	65.69	July 17	70.00	Sept. 17	70.37		

12. 25. 23. 113. Formerly 12. 25. 23. 110. Orchard Park. Drilled unused artesian well in San Andres Limestone of Permian age, diam 8 in, depth 810 ft, depth to artesian aquifers 600-790, cased 0-645. Lsd 3, 546.19 ft above msl. MP top of casing, 0.40 ft above lsd. Highest water level 1.74 below lsd, Jan. 15, 1942; lowest 134.79 below lsd, Aug. 19, 1959. Records available: 1925-60. For additional measurements, see Reeder and others (1960b and c).

Highest water level for the day, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	23.35	18.35	93.53	79.68	99.64	112.00	109.70	113.95	77.30	e47.53	33.60	
10	22.31	16.34	44.43	90.40	78.49	93.65	105.82	115.22	107.73	68.75	44.60	31.68
15	20.27	17.84	63.08	79.68	70.40	96.79	103.14	118.68	114.78	e59.85	39.60	32.69
20	21.40	23.35	72.30	77.74	65.30	95.29	107.61	e07.60	108.53	e57.73	37.33	31.72
25	24.39	26.98	e86.20	77.06	71.68	91.57	108.11	105.68	101.15	52.82	34.73	28.74
Eom	31.02	26.07	96.04	71.37	87.37	104.58	114.55	112.30	84.22	48.10	35.81	27.64

1957

5	31.95	34.50	53.16	92.38	64.70	....	115.33	....	118.57	80.95	....	22.93
10	31.01	38.67	57.10	89.16	e68.02	....	119.65	126.50	118.53	65.58	....	22.27
15	31.55	45.72	80.71	74.03	61.29	99.70	....	126.04	....	....	....	20.90
20	31.17	44.17	75.09	77.94	....	....	120.70	121.57	88.03	42.75	....	20.55
25	34.63	41.99	80.71	76.98	e94.40	99.33	102.77	123.40	95.86	38.98	24.40	20.52
Eom	34.85	45.79	e93.58	70.58	100.43	105.63	109.27	115.25	86.60	34.35	23.61	22.26

1958

5	19.67	18.71	31.87	....	60.00	96.27	109.42	124.40	117.84	39.37	25.40	22.13
10	18.43	18.91	27.63	....	70.43	93.38	105.67	123.42	121.45	35.29	24.67	24.35
15	16.75	26.17	33.11	....	62.08	103.15	113.99	124.41	....	31.68	23.22	22.63
20	15.90	31.57	44.07	....	60.37	108.08	122.53	129.44	62.60	30.19	23.01	24.28
25	16.62	23.85	65.00	72.62	82.94	105.55	....	....	59.77	28.65	22.53	21.67
Eom	16.43	29.24	75.11	64.32	92.97	109.68	123.15	105.65	44.90	26.22	21.37	21.59

1959

5	20.42	33.52	....	....	93.86	92.63	109.98	126.55	123.52	76.88	42.56	38.02
10	21.54	34.52	58.63	....	56.05	....	112.93	125.22	....	61.07	e39.90	39.42
15	22.17	36.98	....	....	51.96	....	130.15	126.96	59.77	38.72	37.94	
20	22.82	....	....	74.20	50.22	....	131.46	116.98	54.77	37.18	34.87	
25	27.52	e41.95	e99.65	92.82	56.13	112.35	107.87	119.69	114.67	54.38	35.72	33.05
Eom	34.25	45.78	105.32	99.88	77.38	113.17	113.84	117.25	103.32	48.49	35.67	35.38

e Estimated.

## 12. 25. 23. 113--Continued.

1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	30.33	23.47	39.89	102.20	79.60	87.88	99.70	116.80	118.68	82.58	35.32	.....
10	30.90	23.73	53.70	106.51	74.04	66.64	53.98	121.21	121.32	72.90	34.01	.....
15	26.98	25.42	67.60	106.77	77.80	48.82	59.25	117.57	118.15	62.64	31.32	.....
20	24.05	32.20	77.10	96.35	92.05	50.18	54.78	119.60	107.30	46.62	31.88	24.56
25	22.98	30.34	101.54	86.20	110.56	77.18	67.55	115.98	99.05	40.40	31.34	23.27
Eom	22.37	31.41	105.77	92.49	98.12	99.90	103.71	118.56	98.39	35.93	31.06	22.37

13. 26. 7. 333. Howard Amason. Drilled unused water-table well in valley fill, diam 6 in, depth 118 ft, cased 0-118. MP top of casing, 0.60 ft above lsd. Highest water level 4.45 below lsd, Oct. 1, 1941; lowest 30.23 below lsd, Sept. 18, 19, 1958. Records available: 1941-60. For additional measurements, see Reeder and others (1960b and c).

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 17, 1956	23.49	May 7, 1957	26.57	Sept. 18, 1958	k30.23	Sept. 17, 1959	24.78
Mar. 8	24.90	July 12	28.85		23	Nov. 19	25.02
May 18	23.72	Sept. 16	27.90	Nov. 19	25.83	Jan. 13, 1960	25.65
July 16	25.86	Nov. 21	27.88	Jan. 12, 1959	24.96	May 17	26.42
Sept. 7	26.59	Jan. 14, 1958	28.45	Mar. 18	24.85	July 20	23.82
Nov. 15	26.06	Mar. 13	28.43	May 14	24.92	Sept. 20	24.70
Jan. 15, 1957	26.35	May 14	27.14	July 15	25.26	Nov. 17	24.00
Mar. 8	26.55	July 17	27.34				

k From recorder graph.

14. 23. 8. 144. M. D. Kincaid. Drilled stock water-table well in San Andres Limestone of Permian age, diam 8 in, depth 460 ft, not cased. Lsd 3,845 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 257.55 below lsd, Feb. 9, 1943; lowest 299.07 below lsd, Sept. 22, 1960. Records available: 1940-60. In intake area of artesian aquifer.

Jan. 27, 1956	283.26	May 10, 1957	a290.07	Sept. 19, 1958	295.55	Nov. 24, 1959	295.97
Mar. 6	282.78	July 22	292.22	Nov. 25	292.20	Jan. 21, 1960	294.50
May 8	a285.20	Sept. 24	293.80	Jan. 21, 1959	a290.78	Mar. 22	293.90
July 20	287.94	Nov. 27	a293.30	Mar. 24	a291.30	May 25	296.73
Sept. 10	a289.53	Jan. 21, 1958	290.25	May 25	a293.30	July 21	297.04
Nov. 21	289.41	Mar. 25	289.58	July 23	295.22	Sept. 22	299.07
Jan. 25, 1957	288.16	May 20	290.65	Sept. 24	a297.05	Nov. 21	297.34
Mar. 13	287.98	July 21	293.00				

a Well being pumped.

14. 26. 7. 433. Henry Johnson. Drilled unused water-table well in valley fill, diam 10 in, depth 126 ft. Lsd 3,476.12 ft above msl. MP top of casing, 0.40 ft above lsd. Highest water level 88.15 below lsd, Jan. 21, 1953; lowest 117.40 below lsd, Mar. 14, 1958. Records available: 1953-58. Measurement discontinued. Jan. 25, 1956, 108.95 (nearby well being pumped); Mar. 7, 104.58 (nearby well being pumped); May 10, 112.51 (nearby well being pumped); Nov. 18, 116.17; Jan. 14, 1957, 109.80; Mar. 8, 110.20; Mar. 14, 1958, 117.40 (measurement uncertain).

14. 26. 12. 433b. Mr. Commins. Drilled irrigation water-table well in valley fill, diam 13 in, depth 125 ft, cased 0-125, perforated 50-115. MP top of casing, at lsd. Highest water level 12.50 below lsd, Jan. 22, 1942; lowest 20.10 below lsd, Sept. 10, 1951. Records available: 1940-60.

Jan. 31, 1956	18.55	May 8, 1957	17.87	Aug. 27, 1958	15.36	Nov. 19, 1959	16.71
Mar. 7	16.67	July 12	18.85	Sept. 23	14.92	Jan. 18, 1960	17.13
May 10	16.27	Sept. 17	18.18	Nov. 19	15.65	Mar. 24	18.34
July 19	17.00	Nov. 21	17.89	Jan. 14, 1959	16.44	May 19	19.24
Sept. 10	17.25	Jan. 16, 1958	18.17	Mar. 18	17.20	July 20	18.30
Nov. 16	17.65	Mar. 14	18.22	May 19	17.46	Sept. 20	16.80
Jan. 10, 1957	17.85	May 15	17.25	July 16	17.00	Nov. 17	16.15
Mar. 8	17.90	July 17	15.18	Sept. 17	16.60		

14. 26. 30. 111. Norris "A" State Engineer and Pecos Valley Artesian Conservancy District. Drilled observation water-table well in sands and gravels in the Orchard Park Terrace of the Pecos Valley fill, diam 9 in, depth 210 ft, cased to 190, perforated 95-190. MP top of casing, 0.75 ft above lsd. Highest water level 81.36 below lsd, July 15, 1953; lowest 101.73 below lsd, Nov. 17, 1960. Records available: 1953-60. For additional measurements, see Reeder and others (1960b and c).

Jan. 6, 1956	88.59	July 12, 1957	92.97	Sept. 5, 1958	95.93	Nov. 4, 1959	98.55
Mar. 7	88.30	Sept. 3	93.65	Nov. 13	96.37	Jan. 18, 1960	98.99
May 10	88.90	Nov. 25	94.59	Jan. 14, 1959	96.64	Mar. 24	99.98
July 6	89.34	Jan. 2, 1958	94.85	Mar. 6	96.78	May 6	99.98
Sept. 20	90.19	Mar. 7	95.15	May 14	97.30	July 11	100.62
Nov. 16	90.92	May 5	95.37	July 15	97.80	Sept. 8	101.33
Jan. 11, 1957	91.35	July 7	95.67	Sept. 3	98.17	Nov. 17	101.73

k From recorder graph.

15. 25. 35. 111. M. M. Spence. Drilled domestic water-table well in valley fill, diam 6 in, depth 130 ft, cased to 130. MP top of casing, 0.30 ft above lsd. Highest water level 12.48 below lsd, Oct. 15, 1941; lowest 35.78 below lsd, Sept. 16, 1953. Records available: 1938-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 30, 1956	26.70	May 8, 1957	21.78	Aug. 27, 1958	24.15	Nov. 20, 1959	27.20
Mar. 7	26.89	July 12	23.43	Sept. 23	26.06	Jan. 19, 1960	27.75
May 10	26.50	Sept. 17	25.55	Nov. 19	26.12	Mar. 24	27.98
July 19	18.34	Nov. 25	b26.42	Jan. 19, 1959	27.83	May 19	27.50
Sept. 10	23.29	Jan. 17, 1958	25.98	Mar. 18	25.17	July 20	27.80
Nov. 16	21.98	Mar. 14	25.67	May 20	24.50	Sept. 21	25.84
Jan. 9, 1957	21.08	May 15	23.82	July 21	25.75	Nov. 17	25.60
Mar. 12	20.20	July 18	25.35	Sept. 17	26.35		

b Well pumped recently.

16. 16. 3. 312. Charles Cleve. Two mi east of Elk Post Office on south side of State Highway 83. Drilled domestic water-table well in alluvium, diam 6 in, depth 85 ft, cased to 85. MP top of casing, 1.00 ft above lsd. Highest water level 44.25 below lsd, Nov. 2, 1954; lowest 49.98 below lsd, Mar. 13, 1957. Records available: 1954-60.

Aug. 3, 1954	47.18	July 13, 1956	47.70	Jan. 13, 1958	47.99	July 23, 1959	47.20
Nov. 2	44.25	Sept. 21	48.10	Mar. 25	47.48	Sept. 24	47.07
Dec. 3	45.20	Nov. 19	47.14	May 20	47.90	Nov. 24	46.30
Jan. 25, 1955	45.11	Jan. 4, 1957	47.38	July 23	46.80	Jan. 11, 1960	45.32
Mar. 29	d46.71	Mar. 13	49.98	Sept. 16	47.50	Mar. 23	46.40
June 6	47.75	May 14	48.03	Nov. 25	46.85	May 25	47.10
Sept. 1	46.34	July 22	48.61	Jan. 13, 1959	47.14	July 21	46.04
Dec. 8	45.57	Sept. 24	47.98	Mar. 24	47.03	Sept. 22	45.97
Mar. 13, 1956	46.14	Nov. 13	47.80	May 25	46.98	Nov. 22	45.58
May 16	47.24						

d Nearby well pumped recently.

#### Colfax County

##### Capulin Basin

29. 27. 16. 222. John King. 200 ft north of U. S. Highway 64-87. Drilled unused water-table well in alluvium, diam 8 in, depth 120 ft. Lsd 6, 821.5 ft above msl. MP top of casing, 1.50 ft above lsd. Highest water level 4.65 below lsd, Feb. 3, Aug. 24, 1960; lowest 6.24 below lsd, Aug. 13, 1957. Records available: 1957-60.

Feb. 18, 1957	5.69	Feb. 19, 1958	5.70	Feb. 12, 1959	5.05	Feb. 3, 1960	4.65
Aug. 13	6.24	Aug. 14	5.38	Aug. 20	5.64	Aug. 24	4.65

#### Curry County

##### Clovis Area

3. 34. 23. 433. Monte Matlock. Formerly Archie Baker. Drilled unused water-table well in Ogallala Formation of Pliocene age, diam 16 in, reported depth 418 ft, cased to 418, perforated 365-418. MP top southwest side of casing, 0.90 ft above lsd. Highest water level 340.62 below lsd, Mar. 16, 1957; lowest 341.18 below lsd, Sept. 13, 1960. Records available: 1954-60.

Jan. 5, 1956	340.80	Jan. 15, 1957	341.00	June 5, 1958	340.93	Sept. 17, 1959	341.00
Mar. 28	340.92	Mar. 16	340.62	Sept. 11	340.66	Jan. 15, 1960	341.04
May 19	340.88	June 20	340.66	Jan. 13, 1959	340.82	Mar. 3	340.78
July 18	340.80	Sept. 24	340.85	Mar. 17	340.82	June 8	341.02
Sept. 17	340.92	Jan. 22, 1958	340.75	June 9	340.86	Sept. 13	341.18
Nov. 12	340.84	Mar. 19	340.93				

3. 36. 27. 413. C. H. Moore-Oliver Co. Drilled irrigation water-table well in Ogallala Formation of Pliocene age, diam 16 in, depth 416 ft. MP top of casing, 1.41 ft above lsd. Highest water level 286.05 below lsd, Jan. 24, 1955; lowest 318.33 below lsd, Sept. 13, 1960. Records available: 1954-60.

Sept. 23, 1954	286.15	Jan. 12, 1956	294.42	Jan. 15, 1957	298.64	June 5, 1958	304.11
Jan. 24, 1955	286.05	Mar. 27	(a)	Mar. 15	294.82	Sept. 11	303.46
Mar. 23	(a)	May 18	(a)	June 19	298.05	Mar. 17, 1959	302.94
May 26	(a)	July 19	296.72	Sept. 23	303.95	Mar. 3, 1960	303.52
July 25	289.65	Sept. 17	(a)	Jan. 16, 1958	298.05	June 9	309.55
Sept. 16	(a)	Nov. 12	295.81	Mar. 20	299.04	Sept. 13	318.33
Nov. 17	299.57						

a Well being pumped.

4.36.10.111. O. E. Patterson (previously reported Pattison). Drilled irrigation water-table well in Ogallala Formation of Pliocene age, diam 18 in, reported depth 411 ft, cased to 411, perforated 286-411. MP top of 1-in hole in pumpbase, 2.20 ft above lsd (since Jan. 13, 1956). Highest water level 328.37 below lsd, July 26, 1954; lowest 345.82 below lsd, Nov. 13, 1956. Records available: 1954-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 13, 1956	331.96	Nov. 13, 1956	345.82	Jan. 23, 1958	337.74	Sept. 17, 1959	337.60
Mar. 27	332.88	Jan. 12, 1957	336.73	Mar. 20	b339.25	Jan. 16, 1960	339.22
May 18	(a)	Mar. 16	(a)	June 5	c340.90	Mar. 3	339.18
July 19	(a)	June 19	337.61	Jan. 15, 1959	338.47	June 8	343.40
Sept. 17	(a)	Sept. 23	339.33	June 9	339.03	Sept. 13	341.37

a Well being pumped.

b Well pumped recently.

c Nearby well being pumped.

7.37.32.131. R. M. Potts. Drilled irrigation water-table well in Ogallala Formation of Pliocene age. MP top of concrete pumpbase, 1.50 ft above lsd. Highest water level 224.54 below lsd, Jan. 27, 1955; lowest 235.47 below lsd, Mar. 28, 1956. Records available: 1954-60.

Jan. 13, 1956	228.74	Nov. 13, 1956	227.30	Jan. 23, 1958	227.19	Oct. 22, 1959	229.80
Mar. 28	235.47	Jan. 12, 1957	227.52	Mar. 20	226.34	Mar. 3, 1960	227.56
May 18	a251.80	Mar. 15	225.87	June 5	228.54	June 8	232.83
July 19	(a)	June 19	(a)	Sept. 11	231.80	Sept. 13	232.24
Sept. 17	231.50	Sept. 23	(a)	Jan. 16, 1959	227.85		

a Well being pumped.

m Measurement uncertain.

#### Dona Ana County

##### Rincon and Mesilla Valleys

22.1E.26.411. H. Worthheim Estate. Drilled irrigation water-table well in valley fill, diam 18 in. MP top east side of casing, 1.50 ft above lsd. Highest water level 14.09 below lsd, July 20, 1960; lowest 25.57 below lsd, Apr. 25, 1957. Records available: 1957-60.

Apr. 25, 1957	25.57	Jan. 8, 1958	22.58	June 12, 1959	18.26	Jan. 8, 1960	17.69
July 24	25.48	July 22	20.39	July 28	17.92	July 20	14.09

23.2E.31.213. New Mexico State University. Drilled irrigation water-table well in valley fill, diam 14 in, reported depth 70 ft. MP top of 5/8-in hole in basal flange of pump, 1.08 ft above lsd. Highest water level 14.13 below lsd, Feb. 10, 1948; lowest 29.12 below lsd, Jan. 7, 1958. Records available: 1948, 1957-60.

Feb. 10, 1948	14.13	Jan. 7, 1958	29.12	Jan. 12, 1959	23.70	Jan. 8, 1960	20.38
Apr. 25, 1957	a45.4	July 22	26.90	July 27	21.25	July 20	18.34
July 24	24.38						

a Well being pumped.

n Measurement made with electric tape.

#### Eddy County

##### Roswell Basin

16.23.15.323. D. W. Runyan. Drilled stock water-table well in San Andres Limestone of Permian age, diam 10 in, depth 1,485 ft. MP top of casing, 0.70 ft above lsd. Highest water level 211.87 below lsd, Mar. 25, 1945; lowest 252.50 below lsd, July 26, 1960. Records available: 1940-60. In intake area of artesian aquifer.

Jan. 20, 1956	237.77	May 10, 1957	245.15	July 22, 1958	249.27	Sept. 28, 1959	252.20
Mar. 6	(a)	July 15	a247.60	Sept. 24	(a)	Nov. 30	250.65
May 9	241.27	Sept. 18	248.53	Nov. 20	247.80	Jan. 26, 1960	250.18
July 18	243.40	Nov. 27	246.50	Jan. 26, 1959	246.95	Mar. 30	251.70
Sept. 20	a244.40	Jan. 29, 1958	245.75	Mar. 23	(a)	May 20	252.35
Nov. 21	242.43	Mar. 18	246.30	May 28	248.88	July 26	252.50
Jan. 16, 1957	243.61	May 16	(a)	July 22	250.35	Nov. 18	252.47
Mar. 14	244.67						

a Well being pumped.

16.25.6.313. Frank Childress. Drilled unused water-table well in valley fill, diam 20 in, depth 39 ft, cased to 39. MP top of 20-in wood cribbing, 0.40 ft above lsd. Highest water level 27.06 below lsd, Apr. 23, 1942; lowest 30.62 below lsd (previously reported 30.59 below lsd), Aug. 9-10, 1954. Records available: 1937-60. For additional measurements, see Reeder and others (1960b and c).

16. 25. 6. 313--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 24, 1956	28.64	May 8, 1957	27.30	Aug. 25, 1958	28.13	Nov. 20, 1959	27.44
Mar. 7	28.70	July 16	28.63	Sept. 23	28.00	Jan. 20, 1960	27.55
May 9	28.49	Sept. 17	28.63	Nov. 28	27.72	Mar. 24	27.47
July 19	28.95	Nov. 26	28.10	Jan. 20, 1959	27.15	May 19	27.50
Sept. 17	29.12	Jan. 22, 1958	27.84	Mar. 19	27.25	July 27	27.75
Nov. 16	28.93	Mar. 19	27.97	May 20	27.18	Sept. 21	27.90
Jan. 9, 1957	28.56	May 15	28.00	July 15	27.38	Nov. 17	27.80
Mar. 12	28.56	July 18	27.96	Sept. 1	27.50		

16. 26. 19. 211. H. V. Parker. Drilled irrigation water-table well in valley fill, diam 12 in, depth 107 ft, cased to 107. MP top of casing, at lsd. Highest water level 9.34 below lsd, Jan. 15, 1942; lowest 90.00 below lsd, Sept. 21, 1960. Records available: 1938-60.

Jan. 13, 1951	c69.92	Sept. 7, 1955	77.87	July 16, 1957	c94.84	Mar. 19, 1959	c74.60
Jan. 11, 1952	33.07	Nov. 8	62.55	Sept. 18	c96.15	May 20	63.40
Jan. 13, 1953	c75.96	Jan. 30, 1956	50.15	Nov. 26	70.70	July 21	70.88
Jan. 15, 1954	54.47	Mar. 7	52.00	Jan. 23, 1958	58.28	Sept. 22	c85.95
May 19	c86.42	May 9	c79.62	Mar. 17	c68.85	Nov. 20	64.55
July 15	cn74.0	July 19	c90.70	May 15	66.95	Jan. 21, 1960	58.95
Sept. 15	84.85	Sept. 17	c95.88	July 18	(c)	Mar. 24	79.60
Nov. 16	66.35	Nov. 16	68.68	Aug. 25	79.42	May 19	c85.99
Jan. 20, 1955	58.51	Jan. 8, 1957	c77.44	Sept. 25	71.52	July 27	c82.77
May 11	74.20	Mar. 12	65.81	Nov. 28	53.62	Sept. 21	90.00
July 7	c90.91	May 8	78.00	Jan. 20, 1959	45.70	Nov. 17	66.23

c Nearby well being pumped.

m Measurement uncertain.

17. 26. 16. 333. Artesia Cemetery. Drilled unused (previously reported municipal) water-table well in valley fill, diam 6 in, depth 83 ft, cased to 83. MP top of casing, 0.25 ft above lsd. Highest water level 6.14 below lsd, Jan. 13, 1942; lowest dry at 83 below lsd, Sept. 22, 1959. Records available: 1937-60.

Jan. 25, 1956	53.69	Jan. 5, 1957	59.00	Aug. 26, 1958	77.45	July 21, 1959	75.80
Mar. 7	49.62	Mar. 12	61.43	Sept. 25	72.08	Sept. 22	f83
May 8	57.20	Jan. 27, 1958	56.60	Nov. 28	55.79	Nov. 20	63.70
July 19	75.55	Mar. 17	63.90	Jan. 22, 1959	55.50	Jan. 22, 1960	59.90
Sept. 17	69.36	May 15	69.35	Mar. 19	63.77	July 27	75.10
Nov. 21	57.62	July 18	75.68	May 20	64.56	Nov. 18	63.18

f Dry at depth given.

18. 23. 5. 333. Joe Clements. Drilled stock water-table well in San Andres Limestone of Permian age, diam 6 in, depth 500 ft, surface casing. MP top of casing, 0.40 ft above lsd. Highest water level 385.50 below lsd, July 21, 1945; lowest 449.04 below lsd, Sept. 29, 1960. Records available: 1945-60. In intake area of artesian aquifer.

Jan. 21, 1956	428.88	May 10, 1957	439.73	July 22, 1958	444.85	Nov. 30, 1959	447.10
Mar. 6	427.36	July 15	440.80	Sept. 24	444.90	Jan. 26, 1960	446.90
May 9	430.82	Sept. 18	442.57	Nov. 20	444.54	Mar. 30	447.13
July 18	435.05	Nov. 27	437.80	Jan. 26, 1959	444.00	May 20	447.95
Sept. 20	(a)	Jan. 29, 1958	442.60	Mar. 23	444.40	July 26	448.35
Nov. 21	437.42	Mar. 18	442.66	July 22	445.80	Sept. 29	449.04
Jan. 17, 1957	438.92	May 16	443.25	Sept. 28	446.95	Nov. 18	448.90
Mar. 14	439.00						

a Well being pumped.

18. 26. 5. 333. Artesia. Drilled unused artesian well in San Andres Limestone of Permian age, diam 8 in, depth 1,056 ft, depth to artesian aquifers 750, 820, 905, cased to 721. Lsd 3,394.50 ft above msl. MP top of casing, 1.94 ft above lsd. Highest water level 8.30 below lsd, Jan. 12, 1942; lowest 157.80 below lsd, Aug. 28, 1957. Records available: 1931-60. For additional measurements, see Reeder and others (1960b and c).

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	57.42	.....	59.72	94.89	83.39	98.92	119.72	.....	.....	109.93	81.48	72.86
10	57.07	51.35	.....	.....	84.65	e97.40	.....	h37.89	.....	106.73	80.72	71.19
15	57.20	52.33	72.90	.....	85.38	98.10	.....	.....	.....	100.82	79.97	72.78
20	57.98	52.68	80.90	.....	91.75	104.58	.....	.....	125.53	.....	77.73	70.26
25	57.73	56.89	94.75	84.34	94.19	109.13	.....	.....	120.98	.....	75.65	67.62
Eom	58.64	57.67	100.33	87.33	95.96	121.01	.....	.....	112.75	86.02	74.17	e67.92

e Estimated.

h Tape measurement.

## 18. 26. 5. 333--Continued.

1957												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	68.30	71.54	81.56	110.27	91.35	106.68	.....	146.88	154.56	129.63	90.10	76.44
10	71.07	70.72	81.87	105.47	90.37	105.07	143.64	.....	154.75	123.49	87.34	74.93
15	71.32	73.97	89.00	98.07	92.47	115.84	144.82	.....	151.87	115.00	84.41	72.70
20	70.68	72.43	91.47	100.12	97.77	.....	147.28	151.79	150.72	105.21	82.73	71.75
25	72.72	74.53	94.77	98.15	109.47	.....	145.88	.....	141.38	e98.66	79.55	70.89
Eom	72.83	77.89	106.67	94.66	109.93	137.40	145.63	155.10	136.32	93.44	78.06	71.60
1958												
5	68.84	66.40	67.22	.....	84.88	.....	.....	139.89	126.48	88.31	73.65	65.38
10	65.93	66.92	65.20	100.10	91.12	113.20	103.86	140.88	127.99	85.82	72.03	64.80
15	66.36	67.50	69.08	87.77	95.38	122.96	119.82	148.37	115.95	83.05	70.18	64.43
20	65.39	69.19	81.04	80.40	98.47	129.81	133.54	148.15	110.40	80.47	69.46	65.73
25	65.96	65.02	.....	84.73	.....	113.80	142.23	126.22	107.87	79.17	67.83	64.67
Eom	65.82	66.17	100.17	84.75	.....	106.47	142.48	122.73	94.32	75.57	66.40	63.91
1959												
5	62.67	63.53	.....	112.95	98.61	94.84	129.68	144.35	151.62	119.60	97.00	85.68
10	62.57	64.45	83.07	106.86	90.08	98.09	.....	148.05	151.03	113.35	92.18	84.03
15	63.32	66.79	92.52	99.76	87.15	104.42	123.07	148.95	148.70	106.66	89.53	81.25
20	62.66	68.68	103.30	94.45	82.09	110.72	117.15	.....	145.74	103.31	88.22	81.03
25	63.23	67.69	111.20	99.47	86.67	115.27	129.39	146.58	.....	100.73	86.72	79.23
Eom	66.62	73.45	114.46	101.53	94.34	124.72	e39.98	143.77	127.65	98.60	85.18	78.73
1960												
5	80.08	76.17	75.28	123.52	103.45	.....	136.83	148.93	144.53	117.81	91.45	82.10
10	79.02	74.84	81.20	120.90	102.52	119.09	110.92	151.28	144.47	112.23	88.72	79.14
15	77.32	76.12	86.40	116.88	.....	.....	105.33	147.87	140.87	109.08	86.71	77.63
20	77.16	76.53	97.15	114.64	.....	.....	101.21	140.40	138.38	101.80	85.38	76.43
25	75.37	72.78	110.89	106.60	123.23	128.24	106.52	142.84	130.10	97.63	84.00	74.92
Eom	75.42	73.40	121.04	105.93	127.66	140.47	136.12	143.25	124.40	93.73	83.02	73.30

e Estimated.

h Tape measurement.

18. 26. 7. 234a. C. H. Hutsonpiller. Drilled unused water-table well in valley fill, diam 8 in, depth 159 ft, cased to 159. MP top of casing, 0.80 ft above lsd. Highest water level 43.50 below lsd, Feb. 9, 1943; lowest 85.00 below lsd, Mar. 29, 1960. Records available: 1937-60. For additional measurements, see Reeder and others (1960b) (1960c).

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 20, 1956	77.88	May 8, 1957	81.40	Sept. 25, 1958	83.25	Nov. 20, 1959	84.68
Mar. 16	77.70	July 15	81.80	Nov. 28	83.39	Jan. 25, 1960	84.85
May 18	78.82	Sept. 18	82.17	Jan. 23, 1959	83.33	Mar. 29	85.00
July 18	79.55	Nov. 26	82.45	Mar. 19	83.48	May 20	84.18
Sept. 17	80.20	Jan. 28, 1958	82.67	May 20	83.83	July 27	83.86
Nov. 21	80.60	Mar. 17	82.74	July 15	84.09	Sept. 29	83.57
Jan. 4, 1957	80.69	May 15	82.92	Sept. 28	84.52	Nov. 18	83.70
Mar. 12	81.05	July 18	82.68				

18. 26. 28. 121a. Town of Dayton. Drilled observation water-table well in valley fill, diam 8 in, depth 250 ft, cased to 182, casing slotted 92-182. MP top of casing, 0.06 ft above lsd. Highest water level 59.79 below lsd, Feb. 5, 1952; lowest 96.98 below lsd, Dec. 30-31, 1960. Records available: 1951-60. For additional measurements, see Reeder and others (1960b and c).

Highest water level for the day, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	81.03	80.73	80.47	80.50	81.01	81.36	81.73	82.29	82.97	83.57	84.14	84.52
10	80.96	80.67	80.44	80.57	81.07	81.42	81.78	82.39	83.07	83.67	84.20	84.53
15	80.93	80.56	80.45	80.67	81.17	81.45	81.87	82.50	83.18	83.77	84.31	84.60
20	.....	80.52	80.39	80.79	81.22	81.50	81.97	82.61	83.26	83.85	84.35	84.58
25	.....	80.45	80.40	80.87	81.28	81.57	82.04	.....	83.39	83.96	84.39	84.64
Eom	80.76	80.50	80.41	80.93	81.34	81.63	82.18	82.86	83.48	84.04	84.47	84.64
1957												
5	84.63	84.64	84.61	85.00	85.40	85.84	86.27	86.82	87.36	87.90	88.41	88.75
10	84.65	84.63	84.64	85.00	85.46	85.91	86.34	86.89	87.46	88.01	88.50	88.79
15	84.67	84.57	84.77	85.08	85.51	85.98	86.42	86.99	87.56	88.07	88.52	88.87
20	.....	84.60	84.81	85.18	85.57	86.03	86.53	87.07	87.62	88.17	88.62	88.90
25	84.66	84.59	84.87	85.25	.....	86.11	86.61	87.15	87.71	88.23	.....	.....
Eom	84.63	84.59	84.92	85.32	85.75	86.20	86.72	87.28	87.81	88.32	88.79	.....

18. 26. 28. 121a--Continued.

1958													
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
5	.....	89.12	89.19	89.25	89.51	89.75	.....	90.36	90.75	91.11	91.43	91.62	
10	.....	89.14	89.18	89.30	89.56	89.79	90.10	90.42	90.82	91.21	91.49	91.68	
15	.....	89.16	89.16	89.32	89.60	89.84	90.13	90.49	90.88	91.25	91.50	91.69	
20	e89.08	89.16	89.15	89.37	89.64	89.88	90.19	90.55	90.94	91.28	91.56	91.70	
25	89.10	89.12	89.18	89.41	89.64	89.91	.....	90.63	91.01	91.37	91.57	91.69	
Eom	89.11	89.18	89.20	89.43	89.69	.....	90.32	90.68	91.03	91.41	91.64	91.70	

1959													
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
5	91.73	91.69	91.70	.....	91.62	91.66	91.94	92.19	92.53	92.85	93.23	93.60	
10	91.71	91.71	91.73	.....	91.60	h91.72	91.96	92.25	92.59	92.90	93.31	93.65	
15	91.71	91.71	91.72	h91.24	91.62	e91.77	91.99	92.30	92.63	92.97	93.37	93.69	
20	91.67	91.71	91.68	91.49	91.63	e91.82	92.04	92.33	92.70	93.03	93.41	e93.77	
25	91.71	91.69	91.72	91.53	91.65	91.84	92.09	92.39	92.76	93.09	93.48	93.79	
Eom	91.73	91.69	h91.55	91.63	91.69	91.89	92.16	92.43	92.78	93.18	93.54	93.84	

1960													
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
5	93.89	94.07	94.25	94.39	94.59	94.90	95.19	95.54	95.91	96.29	e96.64	96.87	
10	93.93	94.11	94.27	94.43	94.65	94.97	95.26	95.59	95.95	e96.34	e96.69	96.89	
15	93.95	94.15	94.28	94.46	94.69	95.01	95.31	95.65	96.01	e96.41	e96.74	96.91	
20	93.99	94.17	94.32	94.50	94.74	95.06	95.35	95.71	96.08	e96.47	e96.80	96.94	
25	94.03	94.21	94.34	94.51	94.79	95.11	95.39	95.77	96.15	e96.53	96.83	96.97	
Eom	94.05	94.23	94.37	94.56	94.85	95.15	95.49	95.85	96.22	e96.59	96.85	96.98	

e Estimated.

h Tape measurement.

19. 23. 27. 111. C. R. Coffin. Drilled stock water-table well in San Andres Limestone of Permian age, diam 7 in (previously reported 6 in), depth 416 ft, surface casing. Lsd 3, 940 ft above msl. MP top of casing, 0.40 ft above lsd. Highest water level 368.75 below lsd, Oct. 19, 1943; lowest 391.07 below lsd, May 10, 1957. Records available: 1940-60. In intake area of artesian aquifer.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 6, 1956	m367.27	July 15, 1957	387.93	Sept. 24, 1958	384.65	Nov. 30, 1959	385.30
July 18	386.17	Sept. 18	a393.70	Jan. 26, 1959	382.56	Jan. 26, 1960	385.15
Sept. 20	381.83	Nov. 27	385.09	Mar. 23	a384.30	Mar. 30	387.50
Jan. 17, 1957	384.88	Jan. 29, 1958	386.60	May 28	a388.20	May 20	386.60
Mar. 14	389.77	May 16	a391.40	July 22	384.85	July 26	387.00
May 10	391.07	July 22	387.60	Sept. 28	384.80		

a Well being pumped.

m Measurement uncertain.

19. 26. 27. 233. E. C. McGonagill. Drilled domestic water-table well in valley fill, diam 8 in, depth 127 ft, cased to 127. MP top of casing, 1.58 ft above lsd. Highest water level 37.63 below lsd, May 11, 1942; lowest 84.02 below lsd, Sept. 28, 1959. Records available: 1937-39, 1941-60.

Jan. 31, 1956	63.53	May 10, 1957	(a)	July 22, 1958	(a)	July 22, 1959	79.11
Mar. 6	66.00	July 15	(a)	Aug. 27	75.32	Sept. 28	84.02
May 9	70.41	Sept. 18	(a)	Sept. 24	b69.66	Nov. 30	74.52
July 18	a77.12	Nov. 26	b73.52	Nov. 20	65.04	Jan. 27, 1960	72.27
Sept. 19	74.12	Jan. 29, 1958	b72.37	Jan. 27, 1959	64.97	Mar. 30	74.55
Nov. 21	71.22	Mar. 17	70.44	Mar. 23	73.61	May 20	78.12
Jan. 3, 1957	b72.68	May 16	73.79	May 28	70.50	Sept. 29	74.68
Mar. 12	(a)						

a Well being pumped.

b Well pumped recently.

## Carlsbad Area

21. 27. 32. 112. L. E. Loman. Drilled domestic and irrigation artesian well in Artesia Group of Permian age, diam 6 in, reported depth 305 ft. Lsd 3, 112 ft above msl. MP top of casing, 0.40 ft above lsd. Highest water level 4.64 below lsd, Jan. 17, 1950; lowest 14.24 below lsd, Nov. 22, 1960. Records available: 1947-60.

Jan. 6, 1956	7.34	Jan. 7, 1957	11.28	Aug. 8, 1958	11.27	Jan. 27, 1960	10.90
Mar. 12	8.29	May 15	12.06	Nov. 28	7.72	Mar. 21	11.83
May 2	10.07	Aug. 16	13.68	Jan. 6, 1959	7.50	May 25	13.30
July 9	11.90	Nov. 29	11.72	May 29	b8.53	Aug. 17	13.79
Sept. 26	12.29	Jan. 8, 1958	11.12	Aug. 18	11.15	Nov. 22	14.24
Nov. 5	11.92	May 21	10.92	Nov. 17	11.33		

b Well pumped recently.

21. 27. 32. 112a. S. Tracy. Drilled irrigation water-table well in alluvium, diam 15 in, reported depth 105 ft. Lsd 3, 112 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 9.13 below lsd, Nov. 22, 1960; lowest 16.26 below lsd, Aug. 16, 1957. Records available: 1950-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 6, 1956	14.26	Jan. 5, 1957	14.89	Aug. 8, 1958	13.05	Jan. 27, 1960	14.26
Mar. 12	14.17	May 21	14.93	Nov. 28	13.04	Mar. 21	14.47
May 2	13.90	Aug. 16	16.26	Jan. 6, 1959	13.40	May 25	14.10
July 9	14.12	Nov. 29	14.40	May 29	12.84	Aug. 17	10.83
Sept. 26	14.22	Jan. 8, 1958	14.58	Aug. 18	12.57	Nov. 22	9.13
Nov. 5	14.60	May 21	13.64	Nov. 17	13.99		

22. 26. 36. 111a. Carlsbad Airfield 2. Drilled unused water-table well in alluvium, diam 12 in, depth 260 ft. MP top of recorder platform, 2.70 ft above lsd. Highest water level 131.50 below lsd, Oct. 14, 1942; lowest 205.67 below lsd, Aug. 20, 1954 (previously reported 204.66 below lsd, Aug. 21, 1954). Records available: 1942-60. For additional measurements, see Reeder and others (1960b and c).

Highest water level for the day, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	173.53	172.20	171.57	175.13	181.67	183.04	186.46	191.58	193.50	189.51	184.63	179.73
10	173.45	171.76	171.44	176.80	182.01	182.70	187.38	192.25	193.28	188.75	183.53	178.67
15	172.75	171.04	171.50	178.45	182.40	182.48	188.45	193.03	193.25	188.47	187.47	178.27
20	172.46	171.14	171.79	179.98	182.65	183.40	189.75	193.54	192.48	187.66	181.55	177.92
25	172.22	171.55	172.50	181.00	183.25	184.12	190.15	194.08	191.54	186.71	181.55	177.52
Eom	172.05	171.76	173.93	181.43	183.33	185.45	191.37	193.68	190.27	185.15	180.62	176.57
1957												
5	175.90	176.71	176.13	180.30	.....	.....	190.77	195.95	194.68	195.57	189.57	183.24
10	175.58	176.63	.....	181.59	186.74	187.67	191.87	196.62	.....	195.13	188.52	182.72
15	175.63	176.67	177.07	183.17	186.33	187.67	192.75	197.17	195.03	194.39	187.32	181.80
20	175.67	176.67	177.77	184.60	186.76	188.25	193.97	197.43	195.30	193.46	186.25	180.98
25	176.04	176.23	178.47	185.50	187.59	188.99	194.56	195.65	195.55	192.28	185.28	180.38
Eom	176.43	176.17	179.17	186.15	188.04	190.09	195.45	196.02	195.95	.....	184.47	179.61
1958												
5	179.02	175.46	173.87	177.73	183.49	186.58	191.65	194.65	189.72	180.95	175.36	.....
10	178.22	175.03	173.54	179.28	183.78	187.47	192.28	195.25	189.58	180.13	174.60	169.61
15	177.68	p74.83	173.12	180.38	184.36	189.06	192.67	195.78	188.97	179.23	.....	169.02
20	177.03	174.72	173.17	181.43	184.35	189.33	192.72	196.13	188.22	178.15	172.87	168.39
25	176.46	174.14	174.02	182.31	184.68	190.21	193.48	189.82	186.47	177.43	.....	.....
Eom	176.00	174.18	175.92	182.94	185.67	191.18	194.05	189.08	182.07	176.27	.....	166.95
1959												
5	166.63	166.28	165.10	169.68	174.48	171.84	175.48	178.07	181.18	178.81	172.52	167.90
10	166.16	166.95	164.80	171.04	174.55	172.21	176.65	179.13	181.58	177.70	171.43	167.42
15	165.67	166.66	.....	172.04	174.18	172.95	177.57	180.17	181.90	176.52	170.51	167.08
20	165.07	166.40	165.01	172.96	172.84	173.86	176.99	180.32	181.37	175.33	169.74	166.75
25	165.33	165.78	165.47	173.60	171.96	174.23	176.75	180.09	180.67	174.26	168.73	165.84
Eom	165.80	165.53	167.72	173.83	171.58	174.69	177.35	180.87	179.80	173.30	169.95	166.98
1960												
5	164.70	165.18	165.20	169.25	175.28	178.42	180.60	176.15	179.42	176.93	169.55	162.84
10	164.39	165.02	164.77	171.46	175.59	178.11	181.05	177.13	178.89	176.11	167.97	162.30
15	164.15	165.94	165.11	172.66	176.01	177.63	177.68	177.88	178.04	175.20	166.68	161.55
20	164.34	165.58	175.13	176.79	177.01	175.75	178.56	177.93	173.55	165.67	160.84	.....
25	164.19	165.77	165.70	175.43	177.74	177.62	174.69	179.31	178.27	171.71	163.94	160.04
Eom	164.35	165.64	167.15	175.36	178.76	178.94	175.10	180.12	177.75	170.38	163.72	159.28

e Estimated.

h Tape measurement.

22. 27. 22. 421. Enea Grandi. Drilled irrigation water-table well in alluvium, diam 16 in, reported depth 150 ft. Lsd 3, 100 ft above msl. MP top of casing, 1.20 ft above lsd (since Mar. 12, 1956). Highest water level 21.43 below lsd, Sept. 15, 1950; lowest 64.60 below lsd, Aug. 31, 1954. Records available: 1947-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7, 1956	37.98	Jan. 5, 1957	40.02	Aug. 8, 1958	41.41	Nov. 17, 1959	33.71
Mar. 12	38.26	May 15	49.40	Nov. 28	37.56	Jan. 8, 1960	35.23
May 2	38.30	Aug. 8	59.14	Jan. 8, 1959	38.00	Mar. 21	37.72
July 9	39.82	Nov. 29	47.14	May 29	35.06	May 25	40.52
Sept. 26	41.40	Jan. 8, 1958	45.89	Aug. 18	(a)	Aug. 17	35.78
Nov. 5	39.47	May 21	44.20	28	36.79	Nov. 22	30.82

a Well being pumped.

23. 27. 2. 122. Jim Derrick. Drilled irrigation water-table well in alluvium, diam 18 in, depth 186 ft. MP top of air-line flange support, 2.10 ft above lsd. Highest water level 26.40 below lsd, Oct. 25, 1946; lowest 68.10 below lsd, July 7, 1954. Records available: 1946-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16, 1951	a64.00	Jan. 14, 1955	57.95	Sept. 26, 1956	44.97	Nov. 28, 1958	45.68
Jan. 14, 1952	35.07	Mar. 16	61.05	Nov. 5	44.34	Jan. 8, 1959	45.52
Jan. 24, 1953	49.44	May 17	58.24	Jan. 8, 1957	44.07	May 29	43.24
Jan. 13, 1954	54.98	July 8	53.69	May 15	54.67	Aug. 18	41.29
Mar. 10	54.94	Sept. 13	48.50	Aug. 8	63.31	Nov. 17	38.67
May 5	59.40	Nov. 7	44.72	Nov. 29	55.27	Jan. 14, 1960	40.37
July 7	68.10	Jan. 9, 1956	44.05	Jan. 8, 1958	53.85	Mar. 21	42.14
Aug. 31	66.75	Mar. 12	43.93	May 21	53.34	Aug. 17	40.11
Oct. 12	63.34	May 2	44.00	Aug. 8	51.58	Nov. 22	35.05
Nov. 8	61.08	July 9	44.02				

a Well being pumped.

23. 28. 23. 133. A. R. Donaldson. Drilled irrigation water-table well in alluvium, diam 16 in, depth 148 ft. Lsd 3,020 ft above msl. MP bottom edge of north  $\frac{1}{2}$ -in hole in west side of pumpbase, 0.80 ft above lsd. Highest water level 38.25 below lsd, Sept. 14, 1950; lowest 70.59 below lsd, Aug. 31, 1954. Records available: 1947-60.

Jan. 10, 1956	46.11	Jan. 9, 1957	47.58	Aug. 8, 1958	46.43	Jan. 14, 1960	44.37
Mar. 12	45.90	May 15	53.97	Nov. 28	43.99	Mar. 21	46.01
May 2	45.48	Aug. 8	60.36	Jan. 8, 1959	44.17	May 26	46.57
July 9	45.17	Nov. 29	52.35	May 29	43.43	Aug. 17	41.00
Sept. 26	45.77	Jan. 9, 1958	51.09	Aug. 18	42.23	Nov. 22	40.36
Nov. 5	46.78	May 21	48.88	Nov. 19	42.90		

25. 24. 26. 121. State Department of Game and Fish. Dug unused artesian well in alluvial conglomerate, diam 24 in, depth 15 ft. Lsd 3,636.39 ft above msl. MP top of casing, 3.00 ft above lsd. Highest water level 0.76 above lsd, Feb. 19, 1953; lowest 3.62 below lsd, Sept. 11, 1960. Records available: 1953-60. For additional measurements, see Reeder and others (1960b and c).

Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	+0.44	+0.47	+0.45	....	-0.44	-0.05	-1.85	....	....	....	....	....
10	.40	.47	+.45	-0.35	.18	.01	1.49	....	....	....	....	....
15	.50	.48	....	.74	1.08	.93	1.71	....	....	....	....	....
20	.48	.48	....	.67	1.19	.96	1.75	....	....	....	....	....
25	.42	.46	....	.63	.68	1.51	1.84	....	....	....	....	....
Eom	.46	.49	....	1.05	.22	1.33	1.29	....	....	....	....	....

1957

5	....	....	....	....	....	-1.24	-2.50	-2.18	-2.25	-1.82	....	-0.18
10	....	....	....	....	....	e1.97	2.73	2.52	1.65	1.76	....	.25
15	....	....	....	....	....	2.25	2.26	2.36	1.81	1.30	....	.13
20	....	....	....	....	....	1.96	2.03	1.70	2.28	.94	....	.26
25	....	....	....	....	-2.72	2.01	1.84	1.66	1.82	....	....	.22
Eom	....	....	....	....	....	1.26	1.81	2.23	2.02	2.32	....	-0.27

1958

5	-0.22	....	-0.26	-1.35	....	-2.40	....	-1.28	....	....	....	....
10	.17	-0.08	.26	1.56	....	....	....	....	....	....	....	.25
15	.19	....	.29	1.47	....	....	....	....	....	....	....	.13
20	....	....	.28	....	....	h2.47	....	....	....	....	....	.26
25	.28	.12	1.37	....	-1.70	2.17	-1.65	....	h-1.32	....	....	....
Eom	.39	.19	h1.22	....	....	1.94	1.90	1.94	....	....	....	e.17

1959

5	....	....	....	....	....	....	....	-1.81	-2.65	-1.74	-0.46	-0.04
10	....	....	....	....	....	....	....	2.41	....	1.14	.36	.08
15	....	....	....	....	....	....	....	....	2.43	.86	.32	.00
20	e+0.08	....	....	....	....	....	....	....	2.44	.78	.31	.03
25	....	....	....	....	-1.21	....	....	....	3.09	.73	.20	-.01
Eom	....	....	....	....	....	....	-1.80	2.41	2.37	.62	.14	+.04

1960

5	-0.06	0.00	-0.21	-1.88	-2.74	-2.74	-2.43	-2.36	-2.95	-1.71	-0.70	-0.46
10	+.04	-.04	.14	2.45	2.59	2.58	1.81	2.94	3.53	1.46	.58	.42
15	.03	.03	.09	2.54	1.83	1.70	1.75	2.91	2.50	1.27	.59	.39
20	.03	.13	.20	2.54	1.80	1.28	2.23	3.24	....	1.07	.58	.34
25	.04	.04	1.13	2.36	2.17	1.69	2.26	3.16	e2.76	.95	.49	.30
Eom	.04	.24	1.16	3.23	2.10	2.75	1.38	3.11	2.71	.85	.49	.26

e Estimated.

h Tape measurement.

25. 24. 27. 421. Brumble and Caffie. Formerly McClure and Hellyer. Drilled irrigation well in alluvium, diam 16 in, depth 101 ft. Lsd 3,701 ft above msl. MP northwest corner of pumpbase, 1.00 ft above lsd (since Sept. 25, 1958). Highest water level 55.68 below lsd, Apr. 4, 1952; lowest 59.97 below lsd, July 23, 1959. Records available: 1952-60.

Date	Water level						
Jan. 12, 1956	56.90	Nov. 6, 1956	57.50	Nov. 26, 1957	57.96	July 23, 1959	59.97
Mar. 13	56.23	Jan. 11, 1957	57.47	Jan. 27, 1958	57.80	Nov. 23	57.59
May 2	58.63	Mar. 22	59.20	Sept. 25	59.24	Jan. 18, 1960	57.43
July 10	(a)	July 19	(a)	Nov. 28	57.33	Mar. 18	57.73
Sept. 27	58.48	Sept. 26	(a)	Jan. 22, 1959	57.21	Nov. 15	58.18

a Well being pumped.

26. 24. 9. 441. John Mayes. Drilled irrigation well in alluvium, diam 12 in, depth 100 ft. Lsd 3,749.4 ft above msl. MP top of air-line flange support, 1.40 ft above lsd. Highest water level 42.29 below lsd, Nov. 8, 1955; lowest 50.20 below lsd, July 19, 1957. Records available: 1952-60.

Jan. 12, 1956	42.44	Mar. 22, 1957	46.61	July 24, 1958	48.28	Sept. 25, 1959	48.61
Mar. 13	(a)	May 16	47.33	Sept. 25	47.28	Nov. 23	48.25
May 3	44.23	July 19	50.20	Nov. 28	46.53	Jan. 18, 1960	48.33
July 10	45.17	Sept. 26	47.73	Jan. 22, 1959	46.45	Mar. 18	49.06
Sept. 27	45.34	Nov. 26	47.07	Mar. 30	(a)	May 20	49.61
Nov. 6	45.38	Jan. 27, 1958	46.94	May 22	48.22	July 22	49.50
Jan. 11, 1957	45.73	May 22	47.96	July 23	47.84	Nov. 15	50.01

a Well being pumped.

#### Hidalgo County

##### Virden Valley

19. 20. 18. 120. Floyd Johns. Drilled domestic water-table well, diam 8 in, depth 60 ft. Lsd 3,803.47 ft above msl. MP top of casing, 0.60 ft above lsd. Highest water level 20.05 below lsd, Feb. 1, 1945; lowest 55.00 below lsd, July 23, 1947. Records available: 1939-60.

Measurements made by Arizona District Ground Water Office.

June 4, 1956	31.95	July 31, 1957	34.02	Sept. 22, 1958	28.2	Dec. 23, 1959	27.4
July 2	34.87	Aug. 26	32.24	Oct. 27	26.8	Jan. 25, 1960	26.2
Aug. 8	37.22	Sept. 30	30.42	Nov. 24	26.5	Feb. 22	24.9
Sept. 1	41.07	Oct. 28	29.80	Dec. 22	25.8	Mar. 28	23.9
22	40.02	Nov. 25	29.20	Jan. 26, 1959	25.7	Apr. 25	c34.7
Nov. 3	34.48	Dec. 23	28.76	Feb. 24	25.6	May 23	c36.6
24	33.10	Jan. 27, 1958	28.4	Mar. 23	c41.5	June 20	25.7
Dec. 31	31.47	Feb. 24	28.3	Apr. 27	27.4	July 25	27.3
Jan. 28, 1957	30.60	Mar. 31	27.1	May 25	29.0	Aug. 17	28.2
25	29.71	Apr. 28	24.7	July 21	31.6	Sept. 19	29.4
Mar. 25	c54.10	May 26	24.5	Aug. 24	31.1	Oct. 22	29.1
Apr. 27	32.64	June 30	b37.0	Sept. 22	31.0	Nov. 19	26.5
May 20	30.54	July 28	28.4	Oct. 19	29.5	Dec. 19	25.9
July 1	c50.88	Aug. 25	29.3	Nov. 23	28.2		

b Well pumped recently.

c Nearby well being pumped.

19. 21. 2. 330a. W. O. Clouse. Formerly Byron Echols. Drilled irrigation water-table well, diam 20 in, depth 80 ft. Lsd about 3,755 ft above msl. MP hole in pumpbase, 3.00 ft above lsd. Highest water level 12.9 below lsd, Apr. 28, 1958; lowest 24.25 below lsd, Nov. 3, 1956. Records available: 1948-60. Measurements made by Arizona District Ground Water Office.

Aug. 8, 1956	22.10	Nov. 25, 1957	15.91	Dec. 22, 1958	14.2	Dec. 23, 1959	14.7
Sept. 22	21.22	Dec. 23	15.75	Jan. 26, 1959	14.2	Jan. 25, 1960	13.7
Nov. 3	24.25	Jan. 27, 1958	15.7	Feb. 24	14.4	Feb. 22	13.7
24	23.24	Feb. 24	15.6	Mar. 23	14.4	Mar. 28	13.4
Dec. 31	21.75	Mar. 31	13.7	Apr. 27	14.8	Apr. 25	13.5
Jan. 28, 1957	20.38	Apr. 28	12.9	May 25	14.7	May 23	14.1
25	18.79	June 30	15.5	July 21	17.9	June 20	15.6
Mar. 25	19.54	July 28	17.2	Aug. 24	15.8	July 25	15.8
Apr. 27	18.24	Aug. 25	15.9	Sept. 22	15.7	Oct. 25	16.5
Aug. 26	17.71	Sept. 22	14.8	Oct. 19	15.5	Nov. 19	15.7
Sept. 30	16.55	Oct. 27	14.3	Nov. 23	15.1	Dec. 19	14.9
Oct. 28	16.08	Nov. 24	14.3				

## Animas Valley

24. 17. 11. 233. W. V. Mitchell. Drilled irrigation water-table well in valley fill, diam 12 in, depth 250 ft. MP top of concrete base and steel casing, 1.00 ft above lsd. Highest water level 77.85 below lsd, Nov. 10, 1960; lowest 80.60 below lsd, May 14, 1956. Records available: 1955-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Nov. 10, 1955	78.27	Nov. 13, 1956	78.37	July 31, 1958	78.20	Nov. 2, 1959	78.31
Jan. 16, 1956	78.00	Jan. 9, 1957	78.19	Nov. 14	78.14	Jan. 25, 1960	78.29
Mar. 12	77.93	Apr. 6	78.64	Jan. 7, 1959	78.20	Apr. 5	77.96
May 14	80.60	Nov. 14	78.37	Apr. 15	78.25	Aug. 1	78.30
July 15	79.84	Jan. 11, 1958	78.20	Aug. 3	78.24	Nov. 10	77.85
Sept. 13	79.27	Apr. 18	77.98				

24. 20. 22. 222. W. W. Roark. Drilled unused water-table well in bolson deposits, diam 6 in, depth 28 ft. MP top edge of collar on casing, 0.95 ft above lsd. Highest water level 17.35 below lsd, May 21, 1948; lowest 24.88 below lsd, Nov. 9, 1960. Records available: 1948-60.

Jan. 19, 1956	21.50	Jan. 25, 1957	22.33	July 30, 1958	23.43	Nov. 3, 1959	24.10
Mar. 14	21.50	Apr. 6	22.38	Nov. 13	23.03	Jan. 7, 1960	24.11
May 16	21.60	Aug. 6	22.80	Jan. 9, 1959	23.10	Apr. 5	24.15
July 16	21.91	Nov. 14	22.95	Apr. 16	23.30	Aug. 2	24.54
Sept. 15	22.20	Jan. 8, 1958	22.92	Aug. 4	23.88	Nov. 9	24.85
Nov. 13	22.32	Apr. 17	22.97				

25. 20. 24. 313. Rudiger & Jundt. Drilled irrigation water-table well in bolson deposits, diam 16 in, depth 97 ft. Lsd 4, 221.43 ft above msl. MP top of casing, 0.43 ft above lsd. Highest water level 42.43 below lsd, Apr. 1, 1948; lowest 82.04 below lsd, Nov. 9, 1960. Records available: 1948-60.

Jan. 19, 1956	66.33	Jan. 23, 1957	70.23	July 30, 1958	al35.67	Nov. 3, 1959	77.62
Mar. 14	65.79	Apr. 6	al33.1	Nov. 13	75.47	Jan. 7, 1960	74.06
May 15	(a)	Aug. 6	77.42	Jan. 9, 1959	73.57	Apr. 5	80.57
July 16	74.35	Nov. 14	73.12	Apr. 15	81.03	Aug. 2	c105.72
Sept. 15	78.54	Jan. 8, 1958	71.34	Aug. 4	al37.1	Nov. 9	82.04
Nov. 13	72.58	Apr. 17	al34.0				

a Well being pumped.

c Nearby well being pumped.

25. 20. 35. 434. W. Veck. Drilled irrigation water-table well in bolson deposits, diam 16 in, depth 120 ft, cased to 108, perforated 60-108. Lsd 4, 245.96 ft above msl. MP top of casing, 0.50 ft below lsd. Highest water level 50.27 below lsd, Apr. 2, 1948; lowest 88.07 below lsd, Apr. 6, 1957. Records available: 1948-60.

Jan. 18, 1956	82.80	Jan. 23, 1957	85.89	July 30, 1958	c86.49	Nov. 3, 1959	85.91
Mar. 13	82.89	Apr. 6	88.07	Nov. 13	84.45	Jan. 7, 1960	86.44
May 15	c84.99	Aug. 6	87.73	Jan. 9, 1959	85.45	Apr. 5	c86.88
July 16	86.76	Nov. 14	85.60	Apr. 15	c87.59	Aug. 2	82.69
Sept. 15	c87.73	Jan. 7, 1958	85.53	Aug. 4	c86.08	Nov. 9	84.79
Nov. 13	86.30	Apr. 17	85.80				

c Nearby well being pumped.

27. 19. 20. 343. Felix Gauthier. Drilled unused water-table well in bolson deposits, diam 16 in, depth 250 ft, cased to 250, perforated 112-218. MP top edge of 1 $\frac{1}{4}$ -in pipe in concrete pump-base, 1.25 ft above lsd (since July 16, 1956). Highest water level 131.90 below lsd, July 29, 1949; lowest 153.58 below lsd, Nov. 10, 1960. Records available: 1949-60.

Jan. 17, 1956	141.85	Nov. 12, 1956	145.73	Nov. 15, 1957	147.21	Jan. 7, 1959	147.45
Mar. 13	141.59	Jan. 24, 1957	144.82	Jan. 9, 1958	146.45	Nov. 3	151.30
May 15	143.02	Apr. 5	146.06	July 31	151.03	Jan. 8, 1960	149.82
July 16	145.21	Aug. 7	148.02	Nov. 14	148.25	Nov. 10	153.58
Sept. 14	146.97						

29. 19. 3. 100. T. B. Strickland. Dug stock water-table well in bolson deposits, diam 36 in, depth 30 ft, cribbed with wood. MP top of concrete well curb, 0.60 ft above lsd. Highest water level 22.40 below lsd, Jan. 17, 1956; lowest 27.99 below lsd, May 26, 1954. Records available: 1949-60.

Jan. 17, 1956	22.40	Jan. 24, 1957	25.30	July 31, 1958	25.03	Nov. 4, 1959	24.54
Mar. 13	22.95	Apr. 5	25.73	Nov. 14	25.08	Jan. 25, 1960	24.48
May 15	24.11	Aug. 7	26.12	Jan. 8, 1959	24.90	Apr. 6	24.88
July 16	25.13	Nov. 15	22.91	Apr. 16	24.40	Aug. 2	24.52
Sept. 14	25.30	Jan. 9, 1958	23.41	Aug. 4	24.20	Nov. 10	24.03
Nov. 12	25.32	Apr. 18	24.41				

## Playas Valley

30. 16. 29. 422. H. Groessel. Formerly Myers Bros. Drilled irrigation water-table well in boson deposits, diam 16 in, depth 160 ft. Lsd 4, 347.5 ft above msl. MP top of 2-in pipe with threaded plug in plate over well, 0.71 ft above lsd. Highest water level 43.85 below lsd, Feb. 4, 1949; lowest 61.17 below lsd, Nov. 23, 1953. Records available: 1948-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16, 1956	57.04	Jan. 22, 1957	58.65	Aug. 5, 1958	56.49	Nov. 4, 1959	54.68
Mar. 12	56.14	Apr. 10	57.26	Nov. 15	56.27	Jan. 22, 1960	53.77
May 12	56.12	Aug. 14	58.67	Jan. 13, 1959	55.57	Apr. 12	52.90
July 13	58.22	Nov. 18	59.30	Apr. 17	54.58	Aug. 3	c55.26
Sept. 13	59.46	Jan. 10, 1958	58.19	Aug. 6	55.19	Nov. 16	53.07
Nov. 14	59.72	Apr. 19	56.38				

c Nearby well being pumped.

32. 17. 23. 434. Mr. Timberlake. Drilled irrigation water-table well in boson deposits, diam 12 in, depth 162 ft. Lsd 4, 507.0 ft above msl. MP top of casing, at lsd (since Jan. 16, 1956). Highest water level 96.09 below lsd, Mar. 23, 1949; lowest 100.19 below lsd, Aug. 3, 1960. Records available: 1948-53, 1956-60.

Date	Water level						
Jan. 16, 1956	98.29	Jan. 22, 1957	98.93	Aug. 5, 1958	99.20	Nov. 4, 1959	99.37
Mar. 12	98.39	Apr. 10	98.97	Nov. 15	98.65	Jan. 22, 1960	99.46
May 12	99.00	Aug. 14	99.03	Jan. 13, 1959	98.68	Apr. 12	99.94
July 13	99.36	Nov. 18	98.89	Apr. 17	98.79	Aug. 3	100.19
Sept. 13	99.05	Jan. 10, 1958	98.80	Aug. 6	99.65	Nov. 16	100.03
Nov. 14	98.75	Apr. 19	99.02				

## Lea County

## Tatum-Lovington-Hobbs Area

12. 34. 11. 413. A. D. Jones Estate. Drilled unused water-table well in Ogallala Formation of Pliocene age, diam 15 in, depth 87 ft, cased. MP top of concrete pumpbase, 0.80 ft above lsd. Highest water level 29.57 below lsd, May 24, 1949; lowest 32.13 below lsd, Sept. 27, 1955. Records available: 1949-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 12, 1956	31.45	Jan. 9, 1957	31.75	June 26, 1958	31.94	Sept. 14, 1959	31.91
Mar. 13	31.42	Mar. 5	31.84	Sept. 9	31.93	Jan. 14, 1960	31.90
May 8	31.41	June 4	31.95	Jan. 13, 1959	31.83	Mar. 22	31.89
July 30	31.43	Sept. 10	32.00	Mar. 9	31.84	June 15	31.92
Sept. 10	31.48	Jan. 18, 1958	31.98	June 1	31.93	Sept. 7	31.93
Nov. 28	31.65	Mar. 17	32.00				

14. 35. 33. 433. W. A. Anderson. Drilled unused water-table well in Ogallala Formation of Pliocene age, diam 6 in, depth 62 ft, not cased. Lsd 4, 013.6 ft above msl. MP top of concrete collar on well, 1.00 ft above lsd. Highest water level 39.65 below lsd, May 21, July 25, 1951, Jan. 9, May 24, 1952; lowest 44.42 below lsd, Nov. 27, 1956. Records available: 1929-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 11, 1956	43.63	Nov. 27, 1956	44.42	Jan. 16, 1958	44.14	Mar. 10, 1959	43.84
Mar. 16	43.57	Jan. 11, 1957	44.41	Mar. 19	43.89	Sept. 15	43.89
May 12	43.60	Mar. 7	44.20	June 26	43.61	Jan. 25, 1960	43.80
July 27	43.80	June 7	43.86	Sept. 11	43.92	Mar. 22	43.63
Sept. 8	43.98	Sept. 13	44.26	Feb. 3, 1959	43.74	June 3	43.70

14. 36. 13. 211. Mrs. Mattie Field. Drilled unused water-table well in Ogallala Formation of Pliocene age, diam 12 in, depth 87 ft. Lsd 3, 904.59 ft above msl. MP notch in north side of concrete well curb, at lsd. Highest water level 35.74 below lsd, Jan. 30, May 24, 1946; lowest 51.66 below lsd, Sept. 8, 1960. Records available: 1929-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9, 1956	45.62	Jan. 8, 1957	46.90	June 24, 1958	48.41	Sept. 16, 1959	49.29
Mar. 13	45.74	Mar. 8	46.98	Sept. 11	48.70	Jan. 12, 1960	50.91
May 10	45.92	June 7	47.20	Jan. 15, 1959	49.50	Mar. 21	51.12
July 27	46.20	Sept. 10	47.50	Mar. 9	49.49	June 15	51.38
Sept. 10	46.40	Jan. 11, 1958	48.07	June 3	49.74	Sept. 8	51.66
Nov. 26	46.75	Mar. 19	48.23				

16. 36. 5 Lot 2. Miss Ethel Yadon. Drilled unused water-table well in Ogallala Formation of Pliocene age, diam 16 in, depth 97 ft. MP top of hole in recorder shelter shelf, 2.95 ft above lsd. Highest water level 53.83 below lsd, Mar. 14, 1957; lowest 56.04 below lsd, Dec. 15, 1960. Records available: 1956-60. For additional measurements, see Reeder and others (1960b and c). Recording gage installed Nov. 29, 1956.

## 16.36.5 Lot 2--Continued.

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53.91
10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53.87
15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53.94
20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53.93
25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53.95
Eom	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53.89	53.93

1957

5	53.95	.....	53.93	53.87	53.95	54.11	54.23	54.38	54.50	.....	54.74	54.84
10	53.92	.....	53.89	54.01	54.00	54.12	54.25	54.40	54.52	.....	54.76	54.87
15	53.92	53.93	53.87	53.99	54.02	54.13	54.29	54.42	54.53	.....	54.77	54.88
20	53.92	53.97	53.88	53.95	54.04	54.14	54.29	54.44	54.54	.....	54.79	54.90
25	53.94	53.92	53.87	53.97	54.08	54.17	54.32	54.46	54.56	54.66	54.82	54.91
Eom	.....	53.91	53.88	54.00	54.08	54.21	54.35	54.47	54.58	54.68	.....	54.95

1958

5	54.95	55.03	.....	54.93	54.89	54.93	55.04	55.12	.....	55.35	55.27	55.27
10	54.95	55.02	54.99	54.93	54.93	54.94	.....	55.15	55.25	55.33	55.25	55.28
15	54.98	55.03	54.96	54.92	.....	54.96	55.04	55.17	55.29	.....	55.26	55.27
20	54.97	55.04	54.96	54.87	e54.89	54.98	55.08	55.17	55.29	55.26	55.28	55.27
25	55.01	.....	54.96	54.90	.....	55.01	55.08	55.19	55.31	55.27	55.27	.....
Eom	55.00	.....	.....	54.88	54.90	55.01	55.11	55.22	55.30	55.27	55.27	.....

1959

5	.....	55.19	55.11	55.05	55.25	55.38	.....	.....	55.49	55.55	55.66	55.74
10	.....	e55.15	55.07	e55.08	55.26	55.40	.....	.....	55.47	55.55	55.65	55.75
15	.....	e55.13	55.09	55.10	55.26	55.39	e55.46	.....	55.46	55.56	55.65	55.75
20	55.19	55.14	55.06	55.14	55.34	e55.40	55.46	.....	55.47	55.59	55.67	55.79
25	.....	e55.21	55.11	55.04	55.16	55.35	.....	55.47	55.47	55.57	55.70	55.79
Eom	55.19	55.13	55.03	55.19	55.39	.....	.....	55.47	55.51	55.63	55.73	55.81

1960

5	55.82	55.86	55.82	55.73	55.78	55.85	55.94	55.85	55.85	55.92	55.99	.....
10	55.83	55.84	55.80	55.72	55.80	55.86	55.97	55.86	55.87	55.92	55.99	.....
15	55.83	55.83	55.78	55.72	55.80	55.88	55.97	55.84	55.89	55.93	55.99	56.01
20	55.85	55.83	55.79	55.71	55.82	55.89	55.95	55.84	55.88	55.95	56.01	56.01
25	55.85	55.81	55.74	e55.74	55.83	55.91	55.91	55.85	55.90	55.97	55.99	.....
Eom	55.85	55.83	55.72	55.77	55.83	55.92	55.87	55.84	55.91	55.95	.....	55.99

e Estimated.

h Tape measurement.

16.37.11.111. A. J. Birkshire. Drilled irrigation water-table well in Ogallala Formation of Pliocene age, diam 16 in, reported depth 118 ft. MP top of 1-in hole in southwest side of pump, 1.34 ft above lsd. Highest water level 31.93 below lsd, Jan. 23, 1949; lowest 73.88 below lsd, Sept. 2, 1960. Records available: 1949-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9, 1956	55.42	Nov. 29, 1956	57.99	Jan. 8, 1958	58.31	Sept. 14, 1959	72.97
Mar. 15	53.26	Jan. 21, 1957	56.24	Mar. 18	58.29	Jan. 11, 1960	63.48
May 10	55.71	Mar. 7	55.28	June 26	(a)	June 14	69.11
July 25	b55.03	June 7	61.33	Sept. 11	66.80	Sept. 2	73.88
Sept. 8	66.03	Sept. 12	63.12	Jan. 16, 1959	60.44		

a Well being pumped.

b Well pumped recently.

17.33.13.341. Potash Co. of America. Drilled observation water-table well in Ogallala Formation of Pliocene age, diam 6 in, depth 252 ft, cased to 252. Lsd 4, 123.5 ft above msl. MP top of casing, 1.10 ft above lsd. Highest water level 146.00 below lsd, Jan. 21, 1953; lowest 156.90 below lsd, Nov. 22, 1960. Records available: 1952-60. For additional measurements, see Reeder and others (1960b and c).

Jan. 5, 1956	151.49	Jan. 23, 1957	152.57	June 25, 1958	154.76	Jan. 15, 1960	155.44
Mar. 14	151.93	Mar. 6	152.97	Sept. 10	154.90	Mar. 23	156.06
May 9	151.86	June 6	153.19	Jan. 18, 1959	155.10	June 2	156.22
July 26	152.35	Sept. 11	153.78	Mar. 10	155.14	Sept. 1	156.47
Sept. 7	152.50	Jan. 15, 1958	154.14	June 2	155.44	Nov. 22	156.90
Nov. 30	152.70	Mar. 18	154.29	Sept. 15	155.51		

k From recorder graph.

17.38.7.111a. L. R. Sebings. Formerly Jim Cunningham. Drilled irrigation water-table well in Ogallala Formation of Pliocene age, diam 16 in, reported depth 125 ft (previously reported 135 ft). MP top of concrete pumpbase, 0.95 ft above lsd. Highest water level 35.59 below lsd, Mar. 21, 1952; lowest 53.47 below lsd, Sept. 2, 1960. Records available: 1951-60.

## 17.38.7.111a--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9, 1956	45.54	Jan. 11, 1957	46.99	Mar. 18, 1958	47.31	Sept. 14, 1959	52.62
Mar. 15	44.08	Mar. 7	46.17	June 26	(a)	Jan. 18, 1960	48.72
May 10	47.57	June 5	48.96	Sept. 11	53.29	Mar. 23	48.98
July 27	(a)	Sept. 12	53.33	Jan. 17, 1959	47.94	June 3	52.96
Sept. 8	52.53	Jan. 9, 1958	48.23	June 2	49.98	Sept. 2	53.47
Nov. 29	47.81						

a Well being pumped.

17.38.34.113. W. E. Busby. Drilled irrigation water-table well in Ogallala Formation of Pliocene age, diam 12 in, depth 125 ft (previously reported 120 ft). MP top of  $\frac{1}{2}$ -in hole in pump-base, 0.54 ft above lsd. Highest water level 24.78 below lsd, Jan. 15, 1944; lowest 32.90 below lsd, June 3, 1960. Records available: 1943-60.

Jan. 9, 1956	28.94	Jan. 11, 1957	30.30	June 26, 1958	31.47	Sept. 15, 1959	32.39
Mar. 15	28.99	Mar. 7	30.42	Sept. 11	31.61	Jan. 19, 1960	32.64
May 10	29.48	June 5	30.61	Jan. 19, 1959	31.88	Mar. 23	32.73
July 27	29.51	Sept. 12	30.86	Mar. 10	31.99	June 3	32.90
Sept. 8	29.76	Jan. 9, 1958	31.13	June 2	32.13	Sept. 2	32.33
Nov. 29	30.14	Mar. 18	31.24				

18.38.30.223. J. T. Montgomery, Jr. Formerly Mrs. Sadie Davis. Drilled unused water-table well in Ogallala Formation of Pliocene age, diam 6 in, depth 50 ft. MP top of casing, 0.30 ft above lsd. Highest water level 23.01 below lsd, Nov. 17, 1947; lowest 30.64 below lsd, June 3, 1960. Records available: 1931-60.

Jan. 6, 1956	25.65	Jan. 8, 1957	27.43	June 24, 1958	28.93	Sept. 15, 1959	29.77
Mar. 14	25.99	Mar. 6	27.58	Sept. 10	29.29	Jan. 19, 1960	29.70
May 9	26.40	June 5	27.94	Jan. 19, 1959	c28.89	Mar. 23	29.95
July 26	26.90	Sept. 11	28.45	Mar. 10	29.11	June 3	30.64
Sept. 6	27.02	Jan. 9, 1958	28.29	June 2	29.40	Sept. 2	30.23
Nov. 29	27.31	Mar. 18	28.35				

c Nearby well being pumped.

Lincoln County

## Hondo Valley

9.13.25.113. M. W. Coll. 0.4 mi southwest of intersection of Magado Creek and State Highway 48. Drilled irrigation and domestic water-table well in alluvium, diam 8 in, depth 90 ft. Lsd about 6,750 ft above msl. MP top of casing, at lsd. Highest water level 18.04 below lsd, Nov. 26, 1958; lowest 35.72 below lsd, Sept. 25, 1956. Records available: 1955-60.

Dec. 1, 1955	27.64	Mar. 26, 1957	29.50	July 24, 1958	29.75	Nov. 25, 1959	25.70
Jan. 26, 1956	28.44	May 15	c40.84	Sept. 17	19.57	Jan. 12, 1960	26.95
Mar. 21	29.45	July 23	(a)	Nov. 26	18.04	Mar. 23	29.70
May 16	c37.03	Sept. 25	29.55	Jan. 15, 1959	20.17	May 26	c36.95
July 23	a44.60	Nov. 14	28.27	Mar. 25	23.43	July 22	25.33
Sept. 25	35.72	Jan. 14, 1958	27.63	May 26	28.60	Sept. 23	27.45
Nov. 28	33.03	Mar. 26	25.72	July 24	27.87	Nov. 23	27.80
Jan. 3, 1957	35.38	May 21	31.90	Sept. 25	26.03		

a Well being pumped.

c Nearby well being pumped.

9.14.10.132. Village of Capitan. East end of village on south side of U. S. Highway 380 in wooden shed. Drilled public-supply water-table well in Mancos Shale of Upper Cretaceous age, diam 8 in, depth 1,261 ft. Lsd about 6,340 ft above msl. MP top of breather hole on west side of pumpbase, 1.00 ft above lsd. Highest water level 45.69 below lsd, Jan. 12, 1960; lowest 69.77 below lsd, Nov. 28, 1956. Records available: 1955-60.

June 15, 1955	62.81	Mar. 26, 1957	(a)	May 21, 1958	51.47	July 24, 1959	46.71
Jan. 26, 1956	59.36	May 15	(a)	July 24	49.84	Sept. 25	46.04
Mar. 20	59.78	July 23	68.85	Sept. 17	48.89	Jan. 12, 1960	45.69
May 22	65.44	Sept. 25	(a)	Nov. 26	47.90	Mar. 23	45.70
July 23	65.33	Nov. 14	(a)	Jan. 15, 1959	47.58	May 26	45.97
Sept. 25	(a)	Jan. 14, 1958	56.69	Mar. 25	47.13	July 22	45.95
Nov. 28	69.77	Mar. 26	53.30	May 26	47.10	Nov. 23	47.10
Jan. 2, 1957	64.79						

a Well being pumped.

9. 14. 25. 324. Fort Stanton. On north bank of Rio Bonito, at west end of Medical Center's buildings. Drilled unused water-table well in alluvium, diam 8 in, depth 45 ft. Lsd about 6, 210 ft above msl. MP top of casing, 2, 00 ft above lsd. Highest water level 12.30 below lsd, May 21, 1958; lowest 23.20 below lsd, Nov. 14, 1957. Records available: 1955-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 28, 1955	21.95	Jan. 2, 1957	21.30	Mar. 26, 1958	12.62	May 26, 1959	18.75
Jan. 27, 1956	19.62	Mar. 26	21.53	May 21	12.30	July 24	22.35
Mar. 20	20.16	May 15	21.68	July 24	19.40	Sept. 25	20.70
May 16	20.40	July 23	21.53	Sept. 17	19.73	Nov. 25	20.85
July 24	20.41	Sept. 25	20.22	Nov. 26	17.18	Jan. 12, 1960	20.98
Sept. 24	20.95	Nov. 14	23.20	Jan. 15, 1959	16.42	Mar. 23	20.95
Nov. 28	21.20	Jan. 14, 1958	17.37	Mar. 25	18.00	May 26	14.78

10. 17. 16. 433. Wilbur McKnight. 5.4 mi north of U. S. Highway 70 at sheep corral in Chaves Canyon. Drilled stock water-table well in Glorieta Sandstone of Permian age, diam 8 in, depth 140 ft. Lsd about 5, 540 ft above msl. MP top of casing, 1.50 ft above lsd. Highest water level 121.57 below lsd, Jan. 26, 1956; lowest 124.05 below lsd, May 26, 1960. Records available: 1955-60.

May 23, 1955	122.09	Jan. 2, 1957	122.18	Mar. 26, 1958	122.84	July 24, 1959	123.73
Jan. 26, 1956	121.57	Mar. 26	122.48	May 21	123.05	Jan. 12, 1960	123.65
Mar. 21	121.70	May 15	122.47	July 24	123.15	Mar. 23	123.55
May 15	121.99	Sept. 25	122.02	Jan. 14, 1959	123.43	May 26	124.05
Sept. 24	122.01	Nov. 14	122.39	Mar. 25	123.40	Sept. 23	127.25
Nov. 28	122.20	Jan. 15, 1958	122.89	May 26	123.60	Nov. 23	123.86

a Well being pumped.

11. 14. 15. 431. E. H. Fuchs. 0.1 mi west of Valley View Motel. Drilled unused water-table well in alluvium, diam 8 in, depth 90 ft. Lsd 6, 240 ft above msl. MP top of east edge of casing, 1.00 ft above lsd. Highest water level 57.16 below lsd, Mar. 26, 1958; lowest 61.60 below lsd, May 20, 1958. Records available: 1955-60.

July 27, 1955	57.58	Mar. 26, 1957	57.90	July 23, 1958	58.58	Nov. 24, 1959	58.02
Jan. 26, 1956	59.91	May 14	57.44	Sept. 16	57.94	Jan. 12, 1960	57.43
Mar. 21	58.29	July 23	58.08	Nov. 25	58.12	Mar. 22	57.70
May 16	58.59	Sept. 25	58.34	Jan. 14, 1959	58.21	May 25	57.86
July 23	58.68	Nov. 14	57.56	Mar. 24	58.34	July 21	57.95
Sept. 25	58.60	Jan. 14, 1958	58.11	May 25	58.10	Sept. 22	58.20
Nov. 29	58.37	Mar. 26	57.16	July 24	58.06	Nov. 23	58.24
Jan. 3, 1957	58.18	May 20	61.60	Sept. 24	58.16		

11. 17. 10. 211. H. M. Dow. 0.1 mi southwest of U. S. Highway 70. Drilled unused water-table well in alluvium, diam 7 in, depth 260 ft. Lsd 5, 190 ft above msl. MP top of 5-in casing, at lsd. Highest water level 28.35 below lsd, July 22, 1960; lowest 35.08 below lsd, Jan. 15, 1958. Records available: 1955-60.

May 17, 1955	32.75	Mar. 26, 1957	31.32	July 24, 1958	30.84	Nov. 24, 1959	33.31
Jan. 25, 1956	33.15	May 15	32.52	Sept. 16	30.55	Jan. 13, 1960	34.72
Mar. 20	30.19	July 23	c35.90	Nov. 25	28.82	Mar. 22	32.35
May 16	31.51	Sept. 24	31.89	Jan. 15, 1959	30.60	May 25	29.40
July 24	33.13	Nov. 14	34.75	Mar. 25	31.69	July 22	28.35
Sept. 25	33.57	Jan. 15, 1958	35.08	May 26	32.39	Sept. 22	32.05
Nov. 29	33.64	Mar. 26	31.26	July 24	c34.16	Nov. 23	31.67
Jan. 2, 1957	33.12	May 20	c31.09	Sept. 25	c33.53		

c Nearby well being pumped.

11. 18. 16. 444. B. G. Robinson. 0.4 mi south of Picacho bridge on east side of Casey Canyon rd. Drilled domestic and stock water-table well in Yeso Formation of Lower Permian age, diam 12 in, depth 125 ft. Lsd 5, 010 ft above msl. MP top of casing, 0.50 ft above lsd. Highest water level 54.14 below lsd, Oct. 26, 1955; lowest 60.18 below lsd, Jan. 15, 1959. Records available: 1955-60.

Oct. 26, 1955	54.14	Mar. 26, 1957	55.18	July 24, 1958	57.75	Nov. 25, 1959	58.35
Jan. 25, 1956	54.88	May 15	54.75	Sept. 16	a58.96	Jan. 13, 1960	57.39
Mar. 20	54.48	July 23	56.68	Nov. 25	a59.31	Mar. 23	55.56
May 15	54.28	Sept. 25	57.26	Jan. 15, 1959	60.18	May 26	57.17
July 24	55.17	Nov. 15	a58.87	Mar. 25	a57.30	July 22	57.39
Sept. 24	a58.30	Jan. 15, 1958	57.14	May 26	56.70	Sept. 23	58.32
Nov. 28	a57.48	Mar. 26	a57.20	July 24	57.45	Nov. 23	57.85
Jan. 2, 1957	56.04	May 20	a56.30	Sept. 25	57.84		

a Well being pumped.

11. 19. 20. 344. Geo. Clements. 150 ft north of house on north side of U. S. Highway 70, 1.5 mi west of Riverside. Drilled domestic and stock water-table well in Yeso Formation of Lower Permian age, diam 5 in, depth 160 ft. Lsd 4, 830 ft above msl. MP top of casing, 1.00 ft above lsd. Highest water level 130.82 below lsd, Aug. 23, 1955; lowest 136.85 below lsd, July 24, 1959. Records available: 1955-60.

## 11. 19. 20. 344--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 23, 1955	130.82	Jan. 2, 1957	136.38	May 21, 1958	134.10	Nov. 25, 1959	134.32
Jan. 5, 1956	132.25	Mar. 26	134.87	July 24	135.65	Jan. 13, 1960	134.42
25	132.77	May 15	135.60	Sept. 16	135.05	Mar. 23	134.64
Mar. 20	132.62	July 23	136.06	Nov. 26	136.55	May 26	134.44
May 15	133.61	Sept. 25	135.42	Jan. 15, 1959	136.12	July 22	134.70
July 24	134.22	Nov. 15	135.95	May 26	136.54	Sept. 23	135.15
Sept. 24	135.06	Jan. 15, 1958	135.28	July 24	136.85	Nov. 23	134.15
Nov. 28	135.75	Mar. 26	136.70	Sept. 25	136.22		

11. 20. 31.123. J. P. White. 0.3 mi west of Border Hills crossing at Rio Hondo. Drilled stock water-table well in Yeso Formation of Lower Permian age, diam 6 in, depth 260 ft. MP top of casing, 2.50 ft above lsd. Highest water level 136.89 below lsd, Oct. 12, 1955; lowest 146.97 below lsd, Nov. 23, 1960. Records available: 1955-60.

Aug. 9, 1955	137.24	Mar. 26, 1957	144.94	July 24, 1958	141.70	Nov. 25, 1959	a147.20
Oct. 12	136.89	May 15	a146.13	Sept. 17	141.65	Jan. 14, 1960	140.80
Jan. 25, 1956	137.21	July 23	146.75	Jan. 16, 1959	a142.58	Mar. 23	146.20
Mar. 20	136.94	Sept. 25	146.03	Mar. 25	a144.03	May 26	146.48
May 15	138.67	Jan. 17, 1958	145.52	May 26	144.45	July 22	145.79
July 24	140.05	Mar. 26	a145.20	July 24	145.19	Sept. 23	a146.30
Sept. 24	141.15	May 21	143.17	Sept. 25	a146.20	Nov. 23	146.97
Jan. 2, 1957	143.60						

a Well being pumped.

## Luna County

## Mimbres Valley

22. 10. 18. 121. State of New Mexico. Drilled unused water-table well in valley fill, diam 30 in, depth 223 ft. MP top of concrete well curb, at lsd. Highest water level 68.00 below lsd, Sept. 30, 1929; lowest 31.94 below lsd, Nov. 11, 1960. Records available: 1928-60.

Jan. 4, 1956	80.28	Nov. 9, 1956	81.08	Jan. 13, 1958	81.69	Aug. 10, 1959	80.44
Mar. 7	80.51	Jan. 11, 1957	81.20	Apr. 24	81.05	Apr. 7, 1960	81.07
May 9	80.59	Apr. 19	81.43	Aug. 6	80.18	Aug. 5	81.75
July 10	80.77	Aug. 10	81.59	Nov. 20	79.19	Nov. 11	81.94
Sept. 7	80.92	Nov. 19	81.55	Jan. 15, 1959	78.97		

24. 7. 4. 424. G. D. Hatfield. Drilled stock and domestic water-table well in valley fill, diam 10 in, depth 107 ft. MP top of casing, 1.00 ft above lsd. Highest water level 64.58 below lsd, Apr. 16, 1929; lowest 98.69 below lsd, Sept. 6, 1952. Records available: 1928-60.

Jan. 9, 1956	89.99	Nov. 9, 1956	93.43	Jan. 14, 1958	91.77	Aug. 10, 1959	95.25
Mar. 8	88.62	Jan. 16, 1957	91.09	Apr. 22	92.13	Nov. 9	92.47
May 10	91.27	Apr. 8	93.64	Aug. 1	95.18	Jan. 26, 1960	90.00
July 11	94.29	Aug. 12	a104.05	Nov. 18	92.17	Aug. 4	94.42
Sept. 7	96.64	Nov. 19	93.89	Jan. 16, 1959	90.15	Nov. 14	93.75

a Well being pumped.

24. 7. 14. 221. J. H. Winslow. Drilled unused water-table well in valley fill, diam 28 in, depth 118 ft. MP top inside edge of tile casing, 1.93 ft above lsd. Highest water level 71.15 below lsd, Apr. 19-20, 1939; lowest 91.64 below lsd, Aug. 4, 1958. Records available: 1939-60.

Jan. 9, 1956	88.95	Jan. 16, 1957	89.67	Aug. 4, 1958	k91.64	Nov. 9, 1959	89.07
Mar. 8	87.90	Apr. 8	c89.90	Nov. 18	88.05	Jan. 19, 1960	88.81
May 10	89.57	Aug. 12	c92.03	Jan. 16, 1959	89.52	Apr. 8	88.40
July 11	90.80	Nov. 19	91.35	Apr. 20	89.45	Aug. 4	90.50
Sept. 10	c91.87	Jan. 14, 1958	90.11	Aug. 10	89.09	Nov. 14	90.86
Nov. 9	91.22	Apr. 23	89.94				

c Nearby well being pumped.

k From recorder graph.

24. 8. 4. 111. Foy Riley. Drilled unused water-table well in valley fill, diam 24 in, reported depth 100 ft. MP top of 2- x 4-in holding hasp, 2.78 ft above lsd. Highest water level 35.06 below lsd, May 6, 1941; lowest 60.94 below lsd, Oct. 6, 1960. Records available: 1941-60. For additional measurements, see Reeder and others (1960b and c).

24.8.4.111--Continued.

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	e54.77	54.39	54.21	54.59	55.06	55.67	56.25	56.70	57.04	57.17	57.06	56.72
10	54.69	54.35	54.34	54.74	55.09	55.70	56.34	56.79	57.08	57.16	57.05	56.66
15	54.62	54.29	54.42	54.78	55.18	55.83	56.46	56.87	57.08	57.18	56.98	56.62
20	54.56	54.27	54.32	54.83	55.31	55.96	56.57	56.93	57.15	57.17	56.91	56.56
25	54.52	54.20	54.35	54.86	55.43	56.05	56.64	56.96	57.19	57.13	56.86	56.54
Eom	54.44	54.17	54.50	54.95	55.61	56.11	56.65	57.01	57.19	57.07	56.79	56.43

1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	56.42	56.03	55.93	56.26	56.60	57.18	57.75	58.01	58.18	58.35	58.11	57.74
10	56.36	56.01	55.93	56.36	56.69	57.24	57.85	58.00	58.25	58.33	58.06	57.70
15	56.27	55.97	55.96	56.46	56.87	57.33	57.94	58.04	58.25	58.30	e57.99	57.66
20	56.21	55.96	55.98	56.52	56.88	57.41	57.97	58.07	58.27	58.26	57.92	57.60
25	56.16	55.93	56.09	56.54	57.00	57.59	58.04	58.09	58.33	58.22	57.86	57.53
Eom	56.08	55.92	56.16	56.57	57.13	57.67	58.04	58.15	58.34	58.14	57.82	57.46

1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	57.42	57.21	56.92	56.92	57.43	.....	.....	58.82	59.14	58.88	58.39	57.94
10	57.36	57.15	56.87	56.97	57.59	.....	.....	58.82	59.14	58.80	58.32	57.87
15	57.31	57.10	56.80	57.08	57.67	.....	.....	58.95	59.15	58.71	58.24	57.80
20	57.25	57.09	56.75	57.10	.....	.....	.....	59.01	59.09	58.63	58.19	57.72
25	57.20	57.01	56.71	57.19	.....	.....	.....	59.01	59.03	58.56	58.10	57.64
Eom	57.25	56.99	56.77	57.20	.....	.....	.....	59.05	58.97	58.48	58.04	57.56

1959

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	57.49	57.23	56.99	57.37	57.68	58.25	58.80	59.26	.....	.....	e59.32	58.80
10	57.49	57.17	56.96	57.49	58.74	58.47	58.91	59.30	.....	.....	59.25	58.69
15	57.67	57.11	57.16	57.55	.....	58.64	58.95	59.40	.....	.....	59.18	58.65
20	57.62	57.14	57.11	57.62	.....	58.70	59.01	59.42	.....	.....	e59.08	58.57
25	57.44	56.99	57.14	57.64	e58.00	58.68	59.16	.....	.....	.....	58.97	58.49
Eom	57.30	56.99	57.25	57.62	58.13	58.72	59.24	.....	.....	.....	58.89	58.47

1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	58.43	57.98	57.86	58.64	59.07	59.68	59.96	60.14	60.66	60.92	60.77	60.47
10	.....	57.92	57.97	58.71	59.13	59.74	59.99	60.23	60.81	60.91	60.72	60.37
15	.....	57.95	57.88	58.80	59.26	59.73	60.02	60.33	60.81	60.85	60.64	60.32
20	58.18	57.76	58.04	58.91	59.40	59.79	.....	60.40	60.90	60.80	60.50	60.25
25	58.08	57.67	58.09	58.97	59.49	59.85	.....	60.43	60.85	60.75	60.50	60.18
Eom	58.01	57.72	58.37	59.04	59.62	59.89	.....	60.49	60.88	60.72	60.52	60.11

e Estimated.

24.10.12.431. Steve Hrna. Dug and drilled unused water-table well in valley fill, diam 36 to 12 in, reported depth 132 ft. MP top of recorder shelter shelf, 1.36 ft above lsd. Highest water level 77.61 below lsd, May 6-13, 1940; lowest 111.33 below lsd, Sept. 1, 1960. Records available: 1939-60. For additional measurements, see Reeder and others (1960b and c).

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	99.83	98.90	100.89	104.27	104.39	106.17	108.01	109.07	109.00	106.77	103.04	101.53
10	99.72	98.83	101.75	104.22	105.04	107.23	108.44	109.07	108.56	106.15	102.70	101.25
15	99.43	99.11	103.66	103.55	105.32	107.13	108.75	109.46	108.77	105.53	102.71	101.16
20	99.48	99.53	104.11	103.97	105.60	107.46	108.78	109.53	108.07	104.70	102.24	101.17
25	99.25	99.84	104.00	103.94	105.44	107.99	109.09	109.32	108.07	103.96	101.86	101.28
Eom	99.03	100.24	103.77	103.54	106.02	107.82	109.08	109.13	107.34	103.41	101.64	100.69

1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	100.72	99.96	103.04	105.76	104.48	107.12	.....	108.35	106.65	106.36	103.02	101.60
10	100.39	100.00	103.16	105.15	105.47	107.83	109.34	108.17	106.82	105.80	102.69	101.90
15	100.07	100.59	103.47	105.26	106.46	107.67	108.47	109.36	107.58	104.87	.....	101.46
20	99.97	101.03	104.50	105.15	106.87	107.98	109.39	108.75	107.99	104.23	102.24	101.27
25	99.86	101.59	105.39	104.88	106.76	108.11	109.60	108.36	107.62	103.77	102.18	101.11
Eom	99.93	102.42	105.76	104.71	107.73	108.49	107.67	107.92	106.84	103.33	102.07	101.33

1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	100.97	100.11	100.48	.....	103.93	106.83	108.05	107.70	108.73	104.29	102.76	101.78
10	100.65	100.76	100.31	104.81	104.22	106.44	108.55	108.81	108.19	103.99	102.57	101.76
15	100.47	101.30	100.40	104.96	104.67	106.94	108.91	109.26	108.90	103.71	102.44	101.62
20	100.49	101.72	101.01	103.59	105.32	107.21	108.46	109.40	106.08	103.36	102.49	101.46
25	100.35	100.38	102.31	103.82	106.15	.....	109.00	108.60	105.41	103.45	102.12	101.28
Eom	100.11	100.24	103.92	104.39	106.60	107.39	108.31	108.60	105.09	103.08	102.13	101.18

## 24. 10. 12. 431--Continued.

Day	1959											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	100.98	100.84	104.61	106.08	105.93	108.13	109.11	110.43	108.09	107.53	104.49	103.26
10	100.94	101.38	105.09	106.30	106.54	108.76	109.74	109.70	108.85	.....	104.32	103.14
15	100.89	101.91	106.18	105.87	106.87	109.10	109.94	108.61	108.97	.....	104.37	102.92
20	100.61	102.53	106.52	105.35	107.46	109.20	109.91	108.13	108.22	.....	103.87	102.67
25	100.78	103.66	106.51	105.31	107.87	109.46	110.02	107.58	108.00	105.55	103.66	102.47
Eom	100.87	104.17	106.57	105.77	107.69	109.55	110.38	107.03	108.03	.....	103.60	102.55
1960												
5	102.56	101.53	105.00	107.83	107.20	109.45	110.53	110.77	111.06	108.07	105.01	103.61
10	102.28	101.43	106.20	107.85	107.66	109.23	110.10	110.99	111.12	107.45	104.68	.....
15	101.97	101.62	107.26	107.52	108.63	109.59	109.97	111.02	110.82	106.93	104.53	103.22
20	101.90	102.56	108.13	106.71	109.23	109.65	110.40	111.05	109.80	106.32	104.20	103.10
25	101.70	103.25	108.23	106.82	109.61	110.14	110.69	111.05	109.41	105.86	103.91	.....
Eom	101.41	103.51	108.43	106.49	109.23	110.44	110.76	111.23	108.86	105.36	103.83	103.10

e Estimated.

h Tape measurement.

24. 11. 14. 122. Charles Waldrop. Drilled irrigation water-table well in valley fill, diam 12 in, reported depth 210 ft, cased to 198. Lsd 4, 405 ft above msl. MP top of 1-in hole in pump-base, 0.80 ft above lsd. Highest water level 107.66 below lsd, Jan. 23, 1952; lowest 190.38 below lsd, May 11, 1956. Records available: 1951-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5, 1956	131.59	Jan. 15, 1957	135.50	Apr. 22, 1958	1201.10	Aug. 11, 1959	155.71
Mar. 9	130.71	Apr. 9	a203.90	Aug. 4	151.37	Nov. 9	b151.31
May 11	190.38	Aug. 12	145.96	Nov. 17	143.90	Jan. 12, 1960	146.78
July 12	a183.90	Nov. 23	b158.87	Jan. 20, 1959	141.95	Apr. 9	a209.20
Sept. 11	(a)	Jan. 17, 1958	139.45	Apr. 21	156.11	Nov. 14	157.09
Nov. 8	138.85						

a Well being pumped.

b Well pumped recently.

24. 11. 24. 311. Madrid Bros. Drilled irrigation water-table well in valley fill, diam 16 in, depth 400 ft (previously reported 200 ft), perforated 100-198. Lsd 4, 200 ft above msl. MP top of casing, 0.83 ft above lsd. Highest water level 87.71 below lsd, Jan. 23, 1952; lowest 114.89 below lsd, Apr. 21, 1959. Records available: 1951-59. Measurement discontinued.

Jan. 5, 1956	102.84	Sept. 11, 1956	a167.17	Nov. 23, 1957	109.40	Nov. 17, 1958	111.58
Mar. 9	102.02	Nov. 8	107.66	Jan. 17, 1958	108.48	Jan. 20, 1959	110.15
May 11	104.70	Jan. 15, 1957	106.08	Apr. 22	b120.63	Apr. 21	114.89
July 12	a151.53	Apr. 9	a170.2	Aug. 4	a182.87		

a Well being pumped.

b Well pumped recently.

25. 6. 2. 111. C. W. Johnson, Jr. Drilled irrigation artesian well in valley fill, diam 16 in, depth 235 ft, perforated 180-235, gravel packed. MP top of casing, 1.30 ft above lsd. Highest water level 0.45 below lsd, Mar. 14, 1953; lowest 36.86 below lsd, Nov. 12, 1953. Records available: 1952-60.

Jan. 7, 1956	24.81	Jan. 16, 1957	25.31	Aug. 4, 1958	27.15	Nov. 9, 1959	27.85
Mar. 8	24.41	Apr. 8	25.49	Nov. 18	26.40	Jan. 19, 1960	26.61
May 10	25.68	Aug. 12	29.00	Jan. 16, 1959	25.93	Apr. 8	26.50
July 11	26.34	Nov. 19	26.63	Apr. 20	26.90	Aug. 4	a25.34
Sept. 10	27.55	Jan. 14, 1958	25.92	Aug. 10	31.38	Nov. 14	32.65
Nov. 9	25.94	Apr. 23	25.25				

c Nearby well being pumped.

25. 6. 7. 211. H. C. Telles. Drilled irrigation water-table well in valley fill, diam 16 in, depth 230 ft. MP top of casing, 0.50 ft above lsd. Highest water level 65.34 below lsd, Mar. 14, 1953; lowest 97.85 below lsd, May 20, 1954. Records available: 1953-60.

Jan. 7, 1956	73.36	Jan. 16, 1957	74.36	Apr. 23, 1958	77.33	Aug. 10, 1959	82.78
Mar. 8	73.23	Apr. 8	74.99	Aug. 4	83.69	Nov. 9	80.73
May 10	73.88	Aug. 12	76.79	Nov. 18	79.20	Jan. 19, 1960	80.10
July 11	74.20	Nov. 19	76.27	Jan. 16, 1959	83.97	Apr. 8	a269.7
Sept. 10	74.99	Jan. 14, 1958	76.23	Apr. 20	85.76	Nov. 14	83.35
Nov. 9	74.44						

a Well being pumped.

c Nearby well being pumped.

26. 9. 11. 211. State of New Mexico. Dug and drilled unused water-table well in valley fill, diam 12 in, depth 80 ft. MP top of concrete well curb, at south side of well, at lsd. Highest water level 36.92 below lsd, Apr. 15, 1939; lowest 57.40 below lsd, Nov. 15, 1960. Records available: 1939-60.

26.9.11.211--Continued.

Date	Water level						
Jan. 12, 1956	51.01	Jan. 17, 1957	52.51	Apr. 23, 1958	54.04	Aug. 11, 1959	55.63
Mar. 9	51.14	Apr. 9	52.79	Aug. 1	54.40	Nov. 10	56.02
May 11	51.47	Aug. 13	53.33	Nov. 18	54.88	Jan. 20, 1960	56.28
July 12	51.61	Nov. 20	53.68	Jan. 22, 1959	55.01	Apr. 11	56.53
Sept. 11	52.03	Jan. 16, 1958	53.90	Apr. 21	55.25	Nov. 15	57.40
Nov. 10	52.38						

27.8.35.122. Mrs. M. M. Gibson. Drilled irrigation water-table well in valley fill, diam 12 to 8 in, depth 550 ft, cased to 550, perforated 155-550. MP top of casing, 1.40 ft above lsd. Highest water level 20.84 below lsd, Mar. 16, 1953; lowest 54.80 below lsd, Aug. 11, 1959. Records available: 1952-60.

Jan. 13, 1956	31.24	Jan. 21, 1957	31.47	Aug. 1, 1958	44.28	Nov. 10, 1959	38.14
Mar. 9	30.02	Apr. 10	32.27	Nov. 19	36.27	Jan. 21, 1960	36.17
May 11	32.37	Aug. 13	34.74	Jan. 23, 1959	34.94	Apr. 11	48.69
July 12	34.54	Nov. 20	34.98	Apr. 21	38.58	Aug. 18	49.66
Sept. 12	33.80	Jan. 16, 1958	33.19	Aug. 11	54.80	Nov. 15	47.48
Nov. 10	(a)	Apr. 23	32.67				

a Well being pumped.

27.9.1.431. W. A. Prater. Drilled irrigation well in valley fill, diam 16 in, depth 62 ft. MP top edge of rectangular hole in pumpbase, 0.65 ft above lsd. Highest water level 30.61 below lsd, Jan. 19, 1954; lowest 41.68 below lsd, Sept. 14, 1954. Records available: 1954-60.

Jan. 13, 1956	31.65	Nov. 10, 1956	33.88	Apr. 23, 1958	a47.5	Aug. 11, 1959	34.27
Mar. 9	31.51	Jan. 21, 1957	32.25	Aug. 1	a50.35	Nov. 10	33.82
May 11	32.00	Apr. 10	34.82	Nov. 19	33.01	Jan. 20, 1960	33.24
July 12	a44.33	Nov. 20	33.51	Jan. 23, 1959	32.76	Apr. 11	51.5
Sept. 11	a42.66	Jan. 16, 1958	32.60	Apr. 21	a49.65	Nov. 15	33.77

a Well being pumped.

m Measurement uncertain.

28.8.36.111. M. R. Hemley. Drilled irrigation artesian well in valley fill, diam 16 in, depth 270 ft, cased to 250, gravel packed, casing perforated. Lsd 4,020 ft above msl. MP top of casing at high point on northwest side of well, 0.80 ft above lsd (since Nov. 20, 1957). Highest water level 22.61 below lsd, Jan. 26, 1953; lowest 55.06 below lsd, Aug. 8, 1960. Records available: 1952-60.

Jan. 14, 1956	33.15	Apr. 10, 1957	38.10	Aug. 5, 1958	47.36	Nov. 10, 1959	40.15
Mar. 9	31.73	Aug. 13	49.08	Nov. 19	38.03	Jan. 21, 1960	37.75
May 11	39.90	Nov. 20	38.44	Jan. 24, 1959	36.32	Apr. 11	50.08
Sept. 12	43.87	Jan. 18, 1958	36.65	Apr. 22	40.23	Aug. 8	55.06
Nov. 10	38.74	Apr. 23	39.00	Aug. 12	47.00	Nov. 15	47.52
Jan. 18, 1957	34.80						

Otero CountyTularosa-Alamogordo Area

14.10.31.144. Luther Watson. Drilled irrigation water-table well in bolson deposits, diam 17 in, depth 230 ft, cased, 16 to 14 in, 0-130. MP top edge of 1-in hole in pumpbase, 0.70 ft above lsd. Highest water level 73.75 below lsd, Apr. 8, 1952; lowest 108.26 below lsd, Apr. 16, 1954. Records available: 1952-60.

Feb. 8, 1956	81.17	Jan. 8, 1957	85.79	July 24, 1958	110.20	Oct. 7, 1959	94.86
Apr. 20	(a)	Apr. 15	88.29	Oct. 9	90.30	Jan. 11, 1960	90.80
June 22	b88.49	Sept. 24	93.41	Jan. 7, 1959	87.42	Apr. 7	b94.02
Aug. 23	(a)	Oct. 29	90.50	Apr. 7	90.60	July 28	a128.30
Oct. 23	88.27	Jan. 29, 1958	86.26	Aug. 12	96.45	Oct. 12	96.80
Dec. 21	86.20	Apr. 2	86.35				

a Well being pumped.

b Well pumped recently.

17.9.24.343. U. S. Air Force. About 0.75 mi west of Holloman Air Force Base pumping station. Drilled public-supply water-table well in bolson deposits, diam 10 in, depth 236 ft, cased to 236. MP top of 1½-in pipe with screw plug at south side of concrete base, 2.10 ft above lsd (since Aug. 12, 1959). Highest water level 61.42 below lsd, Apr. 7, 1960; lowest 78.72 below lsd, Oct. 23, 1956. Records available: 1955-60.

## 17. 9. 24. 343--Continued.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 29, 1955	62.46	Apr. 20, 1956	(a)	Jan. 28, 1958	66.06	Aug. 12, 1959	62.58
June 15	63.63	June 22	b84.75	Apr. 2	66.32	Oct. 7	62.45
Aug. 25	c70.56	Aug. 23	75.88	July 24	b81.55	Jan. 11, 1960	61.92
Oct. 14	(a)	Oct. 23	78.72	Oct. 9	64.27	Apr. 7	61.42
Dec. 12	(a)	Jan. 16, 1957	73.91	Jan. 7, 1959	63.20	July 28	65.66
Jan. 16, 1956	65.58	Sept. 24	68.37	Apr. 7	62.55	Oct. 12	63.95
Feb. 9	63.42	Oct. 29	(a)				

a Well being pumped.

b Well pumped recently.

c Nearby well being pumped.

26. 17. 21. 333. Bryce Dugger. Drilled irrigation artesian well in Bone Spring Limestone of Permian age (Leonard Series), diam 18 in., depth 1,100 ft. MP top of casing, 1.00 ft above lsd. Highest water level 182.52 below lsd, Feb. 14, 1956; lowest 200.76 below lsd, Aug. 19, 1960. Records available: 1956-60.

Feb. 14, 1956	182.52	Jan. 15, 1957	184.47	Aug. 14, 1958	196.21	Jan. 25, 1960	189.18
Apr. 11	187.28	Aug. 6	195.46	Jan. 22, 1959	187.83	Aug. 19	200.76
Sept. 12	192.74	Jan. 29, 1958	186.50	Aug. 13	198.36		

26. 18. 28. 113. Frank Gentry. Drilled irrigation artesian well in Bone Spring Limestone of Permian age (Leonard Series), diam 18 in., depth 394 ft. MP top of casing, 2.00 ft above lsd. Highest water level 31.50 below lsd, Feb. 13, 1956; lowest 42.12 below lsd, Sept. 12, 1956. Records available: 1956-60.

Feb. 13, 1956	31.50	Jan. 15, 1957	33.33	Jan. 22, 1959	37.00	Jan. 25, 1960	38.23
Apr. 12	37.60	Aug. 6	(a)	Aug. 13	(a)		
Sept. 12	42.12	Jan. 29, 1958	35.46			Aug. 19	(a)

a Well being pumped.

Quay County

## House Area

5. 29. 17. 133. W. W. Kuykendall. Drilled unused water-table well in Ogallala Formation of Pliocene age, diam 12 in., depth 57 ft, cased 35-57. Lsd 4, 748 ft above msl. MP top edge of U. S. Geol. Survey marker in west edge of east 6- x 8-in crosstie over well, at lsd. Highest water level 29.82 below lsd, Jan. 21, 1942; lowest 48.24 below lsd, Oct. 30-31, 1954. Records available: 1941-60. For additional measurements, see Reeder and others (1960b and c).

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	47.72	47.38	47.14	46.83	46.59	46.46	46.46	46.49	46.65	46.83	47.21	47.39
10	47.59	47.34	47.12	46.81	46.56	46.47	46.45	46.50	46.67	46.87	47.29	47.38
15	47.55	47.30	47.06	46.76	46.52	46.46	46.45	46.51	46.69	46.91	47.33	47.38
20	47.51	47.27	46.95	46.73	46.50	46.46	46.44	46.54	46.71	46.97	47.36	47.36
25	47.47	47.21	46.92	46.68	46.49	46.46	46.45	46.56	46.73	47.04	47.39	47.35
Eom	47.42	47.18	46.86	46.61	46.48	46.46	46.46	46.63	46.78	47.13	47.39	47.31

1957

5	47.27	47.12	46.90	46.69	46.55	46.79	46.95	47.33	47.83	48.04	48.23	48.05
10	47.26	47.10	46.84	46.66	46.54	46.81	46.99	47.40	47.89	48.08	48.21	48.02
15	47.24	47.07	46.78	46.63	46.55	46.83	47.04	47.47	47.94	48.14	48.21	47.97
20	47.20	47.04	46.75	46.60	46.59	46.86	47.09	47.57	47.98	48.21	48.15	47.94
25	47.17	47.00	46.74	46.59	46.65	46.88	47.16	47.53	48.01	48.22	48.12	47.91
Eom	47.14	46.97	46.70	46.57	46.73	46.90	47.25	47.74	48.03	48.23	48.06	47.87

1958

5	....	47.53	....	47.08	46.90	47.08	47.36	47.50	47.53	....	47.32	47.14
10	47.69	47.50	47.24	47.04	46.89	47.13	47.39	47.48	47.49	47.41	47.29	47.09
15	47.66	47.46	47.19	47.02	46.89	47.18	47.43	47.43	47.40	47.25	47.07	47.03
20	47.62	47.43	47.16	46.98	46.94	47.22	47.48	47.49	47.39	47.22	47.03	47.03
25	47.60	47.32	47.15	46.97	47.00	47.25	47.49	47.53	47.38	47.39	47.21	47.01
Eom	47.56	47.30	47.11	46.92	47.05	47.31	47.50	47.55	47.39	47.37	47.18	e46.96

1959

5	46.92	46.74	46.94	47.35	47.40	47.71	47.78	47.79	47.92	47.90	47.93	e47.93
10	46.87	46.73	47.06	47.37	47.45	47.74	47.80	47.83	47.91	47.92	47.95	47.90
15	46.83	46.73	47.14	47.37	47.48	47.75	47.85	47.87	47.88	47.94	47.97	47.88
20	46.79	46.75	47.18	47.39	47.55	47.78	47.82	47.89	47.85	47.91	47.97	47.84
25	46.74	46.81	47.24	47.36	47.60	47.78	47.80	47.93	47.83	47.88	47.95	47.80
Eom	46.74	46.86	47.31	47.36	47.67	47.82	47.78	47.92	47.86	47.89	47.95	47.76

e Estimated.

5. 29. 17. 133--Continued.

Day	1960											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	47.72	47.48	47.27	47.06	46.88	47.25	47.66	47.34	46.87	46.88	46.80	46.47
10	47.68	47.43	47.22	47.03	46.90	47.35	47.74	47.28	46.84	46.89	46.73	46.43
15	47.65	47.40	47.20	46.98	46.95	47.42	47.71	47.23	46.84	46.85	46.72	46.38
20	47.61	47.36	47.18	46.95	47.02	47.51	47.58	47.09	46.89	46.87	46.62	46.34
25	47.56	47.32	47.14	46.93	47.07	47.57	47.50	46.97	46.93	46.85	46.58	46.28
Eom	e47.51	47.30	47.09	46.91	47.14	47.63	47.41	46.94	46.92	46.82	46.52	46.21

e Estimated.

5. 30. 18. 331. W. C. and H. J. Lee. Formerly W. M. Lee. Drilled irrigation water-table well in Ogallala Formation of Pliocene age, diam 16 in, depth 75 ft, cased to 60. MP top edge of 2-in hole in drum over well, 0.50 ft above lsd. Highest water level 34.76 below lsd, Mar. 28, 1946; lowest 50.91 below lsd, Sept. 18, 1956. Records available: 1944-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 9, 1956	43.88	Nov. 8, 1956	50.90	Jan. 24, 1958	44.06	June 4, 1959	47.95
Mar. 28	(a)	Jan. 11, 1957	48.28	Mar. 19	42.92	Sept. 18	50.55
May 21	(a)	Mar. 18	(a)	June 23	47.82	Jan. 21, 1960	44.87
July 18	46.23	June 20	47.23	Sept. 12	48.92	Mar. 2	43.98
Sept. 18	50.91	Sept. 25	47.64	Jan. 20, 1959	45.85	Sept. 16	46.85

a Well being pumped.

6. 28. 24. 233. G. B. Irwin. Formerly Byers Irwin. Drilled irrigation water-table well in Ogallala Formation of Pliocene age, diam 16 in, reported depth 131 ft, cased 79-131. MP top of 2-in opening in concrete base, 1.21 ft above lsd. Highest water level 77.97 below lsd, Mar. 27, 1944; lowest 95.49 below lsd, Sept. 15, 1955. Records available: 1944-60.

Jan. 12, 1956	87.92	Jan. 8, 1957	90.09	June 23, 1958	95.09	Sept. 21, 1959	98.19
Mar. 29	86.67	Mar. 18	88.91	Sept. 8	c96.23	Jan. 21, 1960	89.57
May 21	a111.19	June 20	91.52	Jan. 22, 1959	89.32	Mar. 2	88.89
July 17	(a)	Sept. 26	a109.47	Mar. 16	88.50	June 1	93.48
Sept. 18	b104.20	Jan. 26, 1958	90.51	June 8	89.20	Sept. 12	91.67
Nov. 9	92.33	Mar. 19	89.48				

a Well being pumped.

b Well pumped recently.

c Nearby well being pumped.

6. 29. 30. 412. Grady and Irene Terrill. Formerly R. W. Dean. Drilled unused (previously reported irrigation) water-table well in Ogallala Formation of Pliocene age, diam 18 in, depth 122 ft, cased to 122. MP top of casing at high point on southeast side of well, 0.78 ft above lsd. Highest water level 73.63 below lsd, Apr. 1, 1947; lowest 86.65 below lsd, Jan. 21, 1960. Records available: 1946-60.

Jan. 12, 1956	c81.95	Jan. 8, 1957	84.26	Mar. 19, 1958	85.98	Sept. 21, 1959	86.22
Mar. 29	c82.14	Mar. 18	84.06	June 23	86.12	Jan. 21, 1960	86.65
May 21	(a)	June 20	84.71	Sept. 29	86.21	Mar. 2	86.43
July 18	(a)	Sept. 25	84.75	Jan. 22, 1959	85.62	June 1	85.96
Sept. 19	84.59	Jan. 26, 1958	85.46	June 8	86.06	Sept. 12	85.94
Nov. 9	84.33						

a Well being pumped.

c Nearby well being pumped.

Roosevelt County

## Portales Valley

1N. 33. 36. 400c. Woodburn Bros. Drilled observation water-table well in valley fill, diam 8 in, depth 43 ft, cased to 40, perforated 8-40. MP top of casing, 2.86 ft above lsd. Highest water level 7.88 below lsd, Apr. 9, 1953; lowest 16.12 below lsd, July 5-6, 1960. Records available: 1953-60. For additional measurements, see Reeder and others (1960b and c).

Jan. 25, 1956	11.24	Jan. 16, 1957	12.72	June 3, 1958	13.79	Jan. 13, 1960	15.42
Mar. 23	11.30	Mar. 14	12.75	Sept. 10	14.48	Mar. 23	15.47
May 16	11.63	June 18	11.24	Jan. 6, 1959	14.25	June 2	15.87
July 23	10.29	Sept. 21	13.53	Mar. 12	14.43	July 5	k16.12
Sept. 13	12.63	Jan. 28, 1958	13.58	June 10	14.70	Sept. 15	15.40
Nov. 19	12.70	Mar. 21	13.57	Sept. 22	15.55		

k From recorder graph.

1.32.14.431. Robert Morrison. Drilled unused water-table well in valley fill, diam 12 in, depth 104 ft, cased to 85. MP at lower edge of board cover over well, 1.14 ft below lsd. Highest water level 43.55 below lsd, Apr. 6, 1945; lowest 66.80 below lsd, June 3, 1960. Records available: 1944-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 26, 1956	c59.18	Jan. 18, 1957	59.69	Mar. 21, 1958	60.04	Sept. 21, 1959	65.13
Mar. 23	56.96	Mar. 14	c61.60	June 3	59.62	Jan. 7, 1960	62.13
May 16	c61.77	June 17	c62.03	Sept. 10	64.59	Mar. 23	61.42
July 23	60.72	Sept. 20	64.37	Jan. 6, 1959	60.81	June 3	66.80
Sept. 13	c65.24	Jan. 27, 1958	60.62	Mar. 12	60.27	Sept. 14	65.95
Nov. 19	60.28						

c Nearby well being pumped.

1.34.25.211. J. B. H. Young. Drilled unused water-table well in valley fill, diam 12 in, reported depth 101 ft. MP top of concrete base, at lsd. Highest water level 31.98 below lsd, May 16, 1933; lowest 70.76 below lsd, Sept. 20, 1960. Records available: 1931-60. For additional measurements, see Reeder and others (1960b and c).

Jan. 18, 1956	61.39	Jan. 19, 1957	64.29	June 3, 1958	65.26	Sept. 22, 1959	68.76
Mar. 22	60.82	Mar. 12	63.98	Sept. 9	66.81	Jan. 17, 1960	68.44
May 14	61.62	June 11	64.60	30	67.16	Mar. 25	68.02
July 23	62.70	Sept. 19	65.84	Jan. 8, 1959	67.06	June 2	69.41
Sept. 12	63.76	Jan. 26, 1958	63.63	Mar. 17	66.48	Sept. 14	70.62
Nov. 19	64.82	Mar. 20	65.09	June 3	67.54	20	K70.76

k From recorder graph.

1.35.11.241. A. Hobbs Estate. Drilled unused water-table well in valley fill, diam 6 in, depth 51 ft. MP top of casing, 3.25 ft above lsd. Highest water level 13.98 below lsd, Mar. 27, 1943; lowest 20.09 below lsd, Sept. 22, 1940. Records available: 1940-60.

Jan. 18, 1956	17.88	Jan. 19, 1957	18.17	June 4, 1958	18.73	Sept. 22, 1959	19.19
Mar. 24	17.93	Mar. 14	18.24	Sept. 9	19.01	Jan. 14, 1960	19.06
May 15	18.00	June 18	18.33	Jan. 7, 1959	18.89	Mar. 24	19.08
July 20	18.14	Sept. 21	18.65	Mar. 12	18.95	June 2	19.32
Sept. 14	18.21	Jan. 25, 1958	18.55	June 10	19.10	Sept. 13	19.44
Nov. 14	18.17	Mar. 21	18.59				

2.34.2.233. Louisa Trout. Drilled unused water-table well in valley fill, diam 12 in, depth 89 ft. MP top of casing, at lsd. Highest water level 32.71 below lsd, Mar. 6-15, 1942; lowest 81.80 below lsd, Oct. 5, 1960. Records available: 1931-60. For additional measurements, see Reeder and others (1960b and c).

Highest water level for the day, from recorder graph, 1956												
Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	67.42	67.20	66.80	.....	.....	70.00	70.85	71.56	71.08	70.89	70.56	
10	67.40	67.09	66.85	.....	.....	69.15	70.22	71.02	71.42	71.27	70.88	70.53
15	67.37	67.02	66.80	.....	68.35	69.43	70.37	71.14	71.58	71.25	70.80	70.98
20	67.26	66.98	67.10	e67.50	68.62	69.40	70.92	71.15	71.33	71.13	70.78	70.78
25	67.18	66.88	67.00	.....	.....	69.40	70.43	71.39	71.20	71.10	70.69	70.66
Eom	67.30	66.88	.....	.....	.....	69.85	70.69	71.55	71.18	70.97	70.60	70.58

1957

5	70.55	70.52	70.55	70.26	70.83	71.11	71.80	72.73	.....	73.46	72.59	72.33
10	70.49	70.70	70.39	70.22	71.27	70.98	71.74	72.90	.....	73.20	72.53	72.32
15	70.65	70.58	70.39	70.35	71.08	71.15	72.05	73.05	.....	73.08	72.46	72.18
20	70.72	70.50	70.38	70.78	71.09	71.45	72.30	73.12	e73.25	72.92	72.48	72.10
25	70.78	70.45	70.35	70.60	71.27	71.75	72.43	73.28	73.50	72.85	72.42	72.14
Eom	70.58	70.43	70.30	70.60	71.18	71.89	72.59	.....	73.30	72.68	72.38	72.44

1958

5	72.51	71.90	71.67	71.61	72.30	73.11	72.64	73.84	74.37	73.68	73.21	72.96
10	72.35	71.86	71.62	71.58	72.72	73.33	72.64	73.97	74.24	73.59	73.22	72.90
15	72.19	71.81	71.57	71.51	72.57	73.22	73.13	.....	74.09	73.53	73.17	72.89
20	72.10	71.79	71.55	71.61	72.40	73.04	73.04	74.31	74.00	73.45	73.13	72.87
25	72.00	71.69	71.51	71.63	72.33	72.92	73.48	74.15	73.91	73.42	73.11	72.80
Eom	71.98	71.70	71.51	72.08	73.04	72.74	73.59	74.20	73.82	73.28	73.04	72.79

1959

5	72.72	72.50	.....	72.70	74.13	74.14	.....	.....	75.53	75.60	75.32	.....
10	72.72	72.48	.....	73.18	73.85	74.08	.....	.....	75.50	75.48	75.14	.....
15	72.67	72.39	72.78	73.18	73.69	74.39	.....	.....	76.06	75.34	75.07	.....
20	72.59	72.39	72.79	73.40	73.75	e75.00	h74.30	.....	76.02	75.31	75.00	e74.58
25	72.54	.....	72.82	73.70	73.64	.....	74.28	75.88	76.04	75.64	e74.98	.....
Eom	72.54	.....	73.17	73.78	74.08	.....	74.90	75.59	75.30	75.48	.....	.....

e Estimated.

h Tape measurement.

## 2.34.2.233--Continued.

1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	74.12	73.81	.....	.....	76.40	76.32	76.58	.....	77.42	.....	75.60
10	.....	74.08	e73.80	74.39	75.89	.....	76.14	.....	.....	.....	.....	75.48
15	74.34	74.02	.....	74.53	75.98	.....	75.99	.....	77.11	.....	.....	75.42
20	74.33	74.02	.....	75.28	76.52	76.59	76.06	e77.00	76.93	e77.00	.....	e75.32
25	74.24	e73.90	73.74	75.25	76.77	76.80	76.06	.....	76.82	.....	h75.74	.....
Eom	74.18	73.81	73.77	.....	76.53	76.45	76.03	.....	76.86	.....	75.66	.....

e Estimated.  
h Tape measurement.

2.35.23.111. P. O. Dozier. Drilled irrigation water-table well in valley fill. MP top of concrete pumpbase, 1.50 ft above lsd. Highest water level 21.32 below lsd, Mar. 27, 1951; lowest 37.07 below lsd, Sept. 22, 1959. Records available: 1949-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 16, 1956	a49.00	Jan. 19, 1957	30.10	June 2, 1958	34.54	Sept. 22, 1959	37.07
Mar. 22	27.91	Mar. 13	29.83	Sept. 12	b38.72	Jan. 14, 1960	33.89
May 14	33.97	June 11	34.22	Jan. 7, 1959	32.57	Mar. 24	32.88
July 20	a57.68	Sept. 19	36.06	Mar. 11	34.87	June 2	b46.15
Sept. 12	35.76	Jan. 23, 1958	31.83	June 10	35.72	Sept. 14	b55.52
Nov. 19	30.93	Mar. 20	31.36				

a Well being pumped.  
b Well pumped recently.

2.36.28.113. C. E. Clark. Drilled irrigation water-table well in valley fill, diam 16 in, depth 120 ft, cased to 120, perforated 60-120. MP top of  $\frac{3}{4}$ -in hole in pumpbase, 1.30 ft above lsd. Records available: 1959-60. Oct. 21, 1959, 31.64 (well pumped recently); Jan. 11, 1960, 29.19; Mar. 24, 27.47; June 2, 38.07 (well pumped recently); Sept. 14, well being pumped.

2.36.28.114b. C. E. Clark. Formerly Morgan Trammel. Drilled unused water-table well in valley fill, diam 12 in, depth 44 ft. MP top of casing, 2.28 ft above lsd. Highest water level 7.30 below lsd, Dec. 4, 1941; lowest 31.58 below lsd, Sept. 10-11, 1958. Records available: 1932-59. Measurement discontinued. For additional measurements, see Reeder and others (1960b and c).

Jan. 27, 1956	23.15	Nov. 21, 1956	24.87	Jan. 23, 1958	25.51	Sept. 10, 1958	k31.58
Mar. 22	22.55	Jan. 18, 1957	24.05	Mar. 20	24.87	Jan. 6, 1959	26.33
May 15	23.97	Mar. 13	23.72	June 3	26.34	Mar. 11	25.41
July 21	24.40	June 18	26.02	Sept. 8	31.44	June 10	28.92
Sept. 12	25.81	Sept. 19	28.67				

k From recorder graph.

## Causey-Lingo Area

5.37.21.333. H. U. Jackson. Drilled irrigation water-table well in undifferentiated Cretaceous rocks, diam 16 in, depth 124 ft. Lsd 3, 968 ft above msl. MP top of  $\frac{3}{4}$ -in hole in pumpbase, 1.65 ft above lsd. Highest water level 79.90 below lsd, Mar. 26, 1956; lowest 90.39 below lsd, June 21, 1960. Records available: 1956-60.

Jan. 31, 1956	80.09	Jan. 17, 1957	80.88	June 4, 1958	81.85	Sept. 16, 1959	85.88
Mar. 26	79.90	Mar. 11	80.77	Sept. 10	89.37	Jan. 17, 1960	84.09
May 17	81.64	June 10	81.79	Jan. 13, 1959	82.74	Mar. 25	84.46
July 24	81.60	Sept. 18	82.58	Mar. 11	82.95	June 21	90.39
Sept. 14	82.59	Jan. 14, 1958	81.80	June 3	83.61	Sept. 28	86.09
Nov. 20	81.12	Mar. 20	81.69				

6.38.21.233. C. C. Harvey. Drilled irrigation water-table well in undifferentiated Cretaceous rocks, diam 16 in, depth 140 ft, cased to 140, casing slotted 100-140. Lsd 3, 927 ft above msl. MP top of 1-in hole in north side of pump, 2.10 ft above lsd. Highest water level 87.18 below lsd, Jan. 31, 1956; lowest 96.21 below lsd, Sept. 16, 1959. Records available: 1956-60. For additional measurements, see Cooper (1960).

Jan. 31, 1956	87.18	Jan. 17, 1957	90.44	Mar. 21, 1958	c92.19	Sept. 16, 1959	96.21
Mar. 26	(a)	Mar. 11	(a)	June 4	c91.50	Jan. 17, 1960	93.93
May 17	91.57	June 10	93.53	Sept. 10	95.02	Mar. 25	93.32
July 24	91.68	Sept. 18	94.18	Jan. 13, 1959	92.33	June 21	95.65
Sept. 14	91.90	Jan. 14, 1958	92.55	Mar. 11	92.14	Sept. 28	93.73
Nov. 20	90.94						

a Well being pumped.  
c Nearby well being pumped.

Sandoval County

## Albuquerque Area

12. 3E. 22, 232. Mrs. Engle. Drilled unused water-table well in Santa Fe Group of middle (?) Miocene to Pleistocene (?) age, diam 14 in, depth 84 ft. MP top north side of casing, 3.50 ft above lsd. Highest water level 34.05 below lsd, Sept. 19, Oct. 30, 1957; lowest 35.58 below lsd, Jan. 25, 1957. Records available: 1956-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 16, 1956	34.12	Apr. 21, 1958	35.14	Mar. 19, 1959	35.12	Feb. 3, 1960	35.02
Nov. 20	34.15	May 12	35.22	Apr. 16	35.24	Mar. 4	35.22
Jan. 25, 1957	35.58	June 13	35.02	May 7	35.08	Apr. 6	35.35
May 9	34.80	July 11	34.70	June 4	34.85	May 6	35.12
June 6	34.65	Aug. 12	34.30	July 8	34.60	June 7	34.81
July 9	34.40	Sept. 8	34.22	Aug. 19	34.56	July 13	34.30
Aug. 1	34.19	Oct. 24	34.30	Sept. 11	34.71	Aug. 3	34.30
Sept. 19	34.05	Nov. 21	34.30	Oct. 8	34.61	Sept. 6	34.11
Oct. 30	34.05	Dec. 15	34.45	Nov. 10	34.48	Oct. 19	34.24
Jan. 28, 1958	34.67	Jan. 26, 1959	34.72	Dec. 2	34.59	Nov. 9	34.28
Mar. 12	34.99	Feb. 26	34.97	Jan. 6, 1960	34.87	Dec. 12	34.54

Santa Fe County

## Estancia Valley

10. 8. 13. 133. W. R. Irby. Drilled irrigation water-table well in valley fill, reported depth 51.8 ft. MP lower inside edge of hole in south side of casing, 0.45 ft above lsd. Highest water level 86.75 below lsd, Feb. 22, 1950; lowest 106.85 below lsd, Sept. 27, 1960. Records available: 1950-60.

Feb. 17, 1956	94.62	June 4, 1957	(a)	Sept. 10, 1958	102.32	Feb. 15, 1960	98.58
May 8	b99.82	Sept. 4	(a)	Dec. 17	97.07	June 21	103.74
Aug. 7	102.10	Dec. 6	97.22	Feb. 6, 1959	96.80	Sept. 27	106.85
Nov. 6	98.83	Feb. 13, 1958	95.99	June 16	103.08	Dec. 15	100.22
Feb. 7, 1957	96.35	June 3	100.02	Dec. 4	99.08		

a Well being pumped.

b Well pumped recently.

10. 9. 29. 130. Glen Terry. Drilled irrigation water-table well in Glorieta Sandstone of Permian age, diam 14 in, reported depth 200 ft, cased to 140. MP top edge of 3-in pipe on north side of pump, 1.30 ft above lsd. Highest water level 55.13 below lsd, Feb. 18, 1949; lowest 74.51 below lsd, Sept. 27, 1960. Records available: 1949-60.

Feb. 17, 1956	64.20	June 4, 1957	a72.45	Sept. 10, 1958	73.05	Dec. 4, 1959	68.88
May 8	68.77	Sept. 4	(a)	Dec. 17	66.77	Feb. 15, 1960	67.42
Aug. 7	72.60	Dec. 6	66.83	Feb. 6, 1959	66.10	June 21	(a)
Nov. 6	68.41	Feb. 13, 1958	65.68	June 16	71.03	Sept. 27	74.51
Feb. 7, 1957	65.92	June 3	a77.80	Sept. 9	72.63	Dec. 15	70.07

a Well being pumped.

Santa Fe Area

16. 8. 12. 131. Golf Course. Drilled unused well in Ancha (?) Formation of upper Pliocene or Pleistocene age and Tesuque (?) Formation of middle (?) Miocene to lower Pliocene age, diam 5 in, depth 400 ft. MP top of 3/8-in hole in cover plate, 0.20 ft above lsd. Highest water level 259.39 below lsd, Oct. 12, 1960; lowest 271.97 below lsd, Jan. 9, 1959. Records available: 1951, 1953-60.

Aug. 13, 1951	262.27	Mar. 1, 1955	261.43	Apr. 3, 1957	261.77	Feb. 25, 1959	260.53
Jan. 16, 1953	261.85	May 3	261.43	June 6	261.00	Apr. 26	260.46
May 6	261.95	July 20	261.41	Dec. 13	g260.88	June 15	260.45
July 14	261.70	Sept. 27	261.23	Feb. 25, 1958	g260.70	Aug. 5	260.20
Sept. 24	261.66	Nov. 23	261.39	May 1	g260.83	Oct. 7	260.02
Nov. 30	261.77	Mar. 13, 1956	261.11	July 25	g264.37	Dec. 7	260.00
Feb. 2, 1954	261.16	May 9	261.13	Aug. 25	g265.55	Feb. 11, 1960	259.63
Mar. 30	261.48	July 21	261.30	Sept. 29	g265.56	Apr. 12	259.59
May 26	261.40	Oct. 3	261.26	Oct. 27	g266.05	June 13	259.80
Aug. 24	261.59	5	261.21	Nov. 25	g265.80	Aug. 15	259.50
Oct. 1	261.37	Nov. 5	261.20	Jan. 9, 1959	g271.97	Oct. 12	259.39
Dec. 18	261.60	Dec. 4	260.93	Feb. 5	g268.97	Dec. 14	259.44

g Measurement made by State Engineer's Office.

17.9.23.334. J. Hanson & Sons. Drilled unused well in Tesuque (?) Formation of middle (?) Miocene to lower Pliocene age, diam 7 in., depth 200 ft. MP top of recorder shelf, 3.84 ft above lsd. Highest water level 140.84 below lsd, June 15, 1959; lowest 156.17 below lsd, Mar. 15, 1960. Records available: 1959-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Mar. 4, 1959	142.39	Oct. 8, 1959	145.89	Mar. 15, 1960	k156.17	Aug. 15, 1960	151.89
Apr. 26	141.79	Dec. 7	150.40	Apr. 12	154.69	Oct. 12	150.41
June 15	140.84	Feb. 11, 1960	155.64	June 13	153.54	Dec. 14	148.96
Aug. 16	142.87						

k From recorder graph.

### Sierra County

#### Hot Springs Area

6. Harry Dakos. Lot 4, block 8 in Truth or Consequences. Drilled unused artesian well in Magdalena Group of Pennsylvanian and lowermost Permian age, diam 7 in., depth 105 ft. Lsd 4, 243.75 ft above msl. MP top of extended casing, 3.72 ft above lsd. Highest water level 1.66 above lsd, Dec. 24, 1941, June 27, 1958; lowest 1.00 below lsd, Nov. 29, 1956. Records available: 1940-60. For additional measurements, see Reeder and others (1960b and c).

#### Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	-0.18	-0.15	+0.04	+0.43	+0.13	0.00	-0.03	-0.15	-0.02	-0.57	-0.70	-0.70
10	.19	.13	-.15	.38	+.03	+.11	+.09	.05	.10	.62	.70	.69
15	.15	.12	.00	.31	-.12	.09	+.09	.01	.30	.62	.74	.71
20	.17	.17	.19	.29	.12	.15	.00	.10	.41	.68	.72	.67
25	.19	.14	-.38	.29	.19	.08	.00	.17	.49	.69	.69	.67
Eom	.17	e.-15	.48	.29	-.22	+.01	0.07	.13	.53	.69	.71	.66

#### 1957

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	-0.66	-0.68	-0.59	-0.19	-0.36	-0.54	+0.02	+0.28	+0.30	+0.39	+0.69	+0.80
10	.71	.67	.58	.13	.38	-.16	.13	.28	.29	.40	.72	.81
15	.67	.64	.60	.09	.42	.00	.20	.37	.58	.47	.79	.81
20	.65	.63	.52	.14	.45	+.10	.20	.30	.55	.54	.78	.80
25	.69	.60	.31	.25	.52	+.02	.30	.27	.42	.56	.79	.81
Eom	.68	.59	.17	.24	.54	-.04	.16	....	.38	.64	.79	.82

#### 1958

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	+0.89	+1.25	+1.30	+1.47	+1.57	+1.61	+1.59	+1.50	....	+1.02	+1.05	+1.11
10	.83	1.27	....	1.52	1.58	1.63	1.56	1.52	+1.17	1.00	1.07	1.10
15	1.07	1.27	....	1.55	1.57	1.61	1.57	1.51	1.11	1.01	1.11	1.10
20	1.17	1.28	1.46	1.60	1.55	1.60	1.52	1.35	1.03	1.02	1.04	1.11
25	1.24	1.29	1.46	1.55	1.54	1.61	....	1.30	1.00	1.00	1.11	1.18
Eom	1.17	1.29	1.47	1.55	1.56	1.61	1.49	1.25	.99	1.00	1.11	1.10

#### 1959

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	+1.09	+1.15	+1.13	+1.10	+0.86	+0.71	+0.80	+0.81	+0.58	+0.57	+0.26	+0.18
10	1.06	1.13	1.15	1.04	.87	.71	.81	.81	.55	.55	.28	.20
15	1.07	1.15	1.11	1.01	.80	.72	.82	.74	.56	.47	.27	.21
20	1.15	1.12	1.09	.98	.75	.71	.82	.69	.57	.43	.23	.17
25	1.14	1.13	1.14	.94	.71	.72	.87	.65	.56	.41	.24	.23
Eom	1.16	1.10	1.16	.95	.66	.72	.81	.57	.60	.31	.21	.21

#### 1960

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	+0.23	+0.45	+0.58	+0.77	+0.82	+0.71	+0.70	+0.50	+0.51	-0.08	-0.15	-0.07
10	.35	.49	.66	.82	.77	.73	.76	.42	.31	.14	.14	.04
15	.40	.46	.70	.82	.78	.69	.67	.41	.30	.13	.11	.01
20	.40	e+.50	.71	.81	.75	.66	.63	.40	.13	.11	.12	-.03
25	.46	.50	.73	.81	.74	.64	.62	.48	.02	.12	.10	+.03
Eom	.50	.51	.80	.79	.71	.65	.53	.51	-.03	.11	.10	.00

e Estimated.

6a. Harry Dakos. Lot 4, block 8 in Truth or Consequences. Dug unused water-table well in alluvium, diam 24 in., depth 6 ft. Lsd 4, 240.71 ft above msl. MP base of recorder, 3.97 ft above lsd. Highest water level 1.37 above lsd, July 5, 8, 1960; lowest 2.75 below lsd, Oct. 27, 31, Nov. 3, 1956. Records available: 1941-60. For additional measurements, see Reeder and others (1960b and c).

#### Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	-2.29	-2.30	-2.13	-1.69	-1.90	-2.24	-1.84	-0.92	-2.18	-2.60	-2.74	-2.69
10	2.30	.70	2.18	1.71	1.99	2.10	1.97	1.61	2.15	2.65	2.72	2.69
15	2.29	1.35	2.18	1.75	2.10	2.03	2.02	1.85	2.25	2.70	2.71	2.68
20	2.29	1.75	2.05	1.78	2.18	2.00	2.02	1.98	2.38	2.73	2.71	2.68
25	2.30	1.95	1.86	1.81	2.23	2.00	2.05	2.12	2.49	2.74	2.71	2.67
Eom	2.30	2.05	1.72	1.83	2.29	1.56	1.00	2.20	2.55	2.75	2.71	2.66

6a--Continued.

Day	1957											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	-2.63	-2.60	-2.54	-1.96	-1.38	-2.53	-1.99	-1.21	-0.85	-1.79	-1.76	-1.70
10	2.61	2.59	2.53	2.05	1.36	2.34	1.94	1.13	1.32	1.82	1.74	1.70
15	2.60	2.58	2.53	2.08	1.84	2.12	.60	1.44	1.50	1.84	1.76	1.66
20	2.62	2.56	.07	2.10	2.15	1.99	-1.27	1.52	1.52	1.83	1.74	...
25	2.62	2.56	1.36	2.18	2.34	1.96	+1.20	-1.60	1.60	1.80	1.74	1.61
Eom	2.61	2.54	1.78	.40	2.45	1.98	-.66	+1.22	1.72	1.79	1.71	1.59
1958												
5	-1.35	-1.20	+0.06	-0.89	-0.96	-0.57	-0.93	-0.78	...	-0.75	-0.97	-1.41
10	1.42	1.17	...	.91	.98	.79	.98	.+28	-1.23	1.09	1.17	1.41
15	1.44	1.15	...	.92	1.00	.91	.99	-.43	+.99	1.25	1.30	1.39
20	1.37	1.12	-.52	.62	1.00	.95	1.00	.79	-.56	1.35	1.39	1.39
25	1.29	1.09	.71	.78	1.01	.96	1.01	1.00	.99	1.41	1.41	1.40
Eom	1.25	-1.08	.84	.92	.24	.88	.40	...	.17	.49	1.41	...
1959												
5	e-1.42	-1.35	-1.33	-1.33	-1.48	-1.69	-1.64	-1.53	-1.53	-1.84	-2.05	-2.17
10	1.43	1.34	1.33	1.35	1.51	1.68	1.59	1.53	1.66	1.83	2.10	2.17
15	1.42	1.33	1.33	1.39	1.54	1.68	1.57	1.32	1.75	1.88	2.11	2.15
20	1.42	1.32	1.34	1.41	1.59	1.67	1.55	1.43	1.79	1.94	2.14	2.13
25	1.40	1.33	1.34	1.43	1.64	1.66	1.53	1.08	1.81	1.97	2.14	2.13
Eom	1.37	1.33	1.33	1.44	1.68	1.68	1.51	1.37	1.83	2.02	2.16	2.13
1960												
5	-2.12	-1.79	-1.69	-1.45	-1.43	-1.54	+1.37	-1.26	-1.67	...	...	e0.00
10	2.04	1.76	1.60	1.43	1.45	+1.07	+1.30	1.45	...	...	-1.86	+1.30
15	1.96	1.76	1.55	1.42	1.45	-.08	...	1.59	...	...	2.01	1.27
20	1.91	1.76	1.53	e1.42	1.48	.59	...	1.68	...	...	2.14	+.20
25	1.86	1.75	1.48	1.43	1.51	1.03	...	1.74	...	...	2.21	-.43
Eom	1.81	1.74	1.46	1.43	1.52	-1.28	...	1.65	...	...	-2.25	1.04

e Estimated.

## Rincon Valley

16.5.25.211. U. S. Government. Drilled unused water-table well in valley fill, diam 10 in, depth 32 ft. MP top of casing, 3,00 ft above lsd. Highest water level 11.30 below lsd, Apr. 17, 1947; lowest 27.78 below lsd, Jan. 6, 1958. Records available: 1946-48, 1957-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Apr. 22, 1957	27.16	Jan. 6, 1958	27.78	Jan. 9, 1959	24.27	Jan. 4, 1960	21.36
July 26	26.62	July 21	26.42	July 27	19.11	July 20	21.75

## Taos County

## Sunshine Valley

1S. 73.19.422. Spring Bros. Drilled unused water-table well in Santa Fe Group of middle (?) Miocene to Pleistocene (?) age, diam 16 in, depth 446 ft, cased to 446. MP top of casing, 1.18 ft above lsd. Highest water level 193.95 below lsd, June 5, 1957; lowest 207.47 below lsd, Aug. 13, 1958. Records available: 1955-60.

July 11, 1955	201.41	Oct. 4, 1956	198.52	Dec. 4, 1957	201.06	Aug. 19, 1959	202.02
Sept. 2	202.59	Dec. 15	196.62	June 24, 1958	205.17	Oct. 13	202.05
Nov. 8	196.06	Feb. 15, 1957	196.16	Aug. 13	207.47	Dec. 7	202.12
Feb. 21, 1956	195.05	Apr. 18	195.89	Feb. 10, 1959	201.84	Apr. 20, 1960	202.07
Apr. 19	195.87	June 5	193.95	Apr. 23	202.92	Aug. 22	206.66
June 7	198.32	Aug. 6	(a)	June 11	202.20	Nov. 9	203.57
Aug. 9	206.02	Oct. 11	201.54				

a Well being pumped.

1S. 74.26.442. Top O' The World Farms, Inc. Drilled test hole water-table well in Santa Fe Group of middle (?) Miocene to Pleistocene (?) age, diam 2 in, depth 259 ft, cased to 259. Lsd 7, 587.6 ft above msl. MP top of casing, 1.20 ft above lsd. Highest water level 228.80 below lsd, May 6, 1958; lowest 236.41 below lsd, Nov. 9, 1960. Records available: 1955-60.

July 10, 1955	232.9	Dec. 14, 1956	233.54	May 6, 1958	228.80	Aug. 19, 1959	235.44
Aug. 22	233.05	Feb. 15, 1957	233.80	June 24	234.65	Oct. 13	235.63
Nov. 8	233.08	Apr. 18	233.75	Aug. 12	235.00	Dec. 2	235.83
Feb. 21, 1956	232.78	June 5	233.93	Oct. 14	235.30	Feb. 2, 1960	235.47
Apr. 19	232.65	Aug. 6	234.10	Dec. 4	235.02	Apr. 20	235.77
June 6	232.64	Oct. 11	234.34	Feb. 10, 1959	235.25	Aug. 22	236.14
Aug. 8	233.18	Dec. 4	234.47	Apr. 23	235.33	Nov. 9	236.41
Oct. 3	233.60	Feb. 18, 1958	234.58	June 11	235.27		

30. 12. 23. 122. U. S. Army Corps of Engineers, Chifle damsite. Drilled test hole water-table well in Santa Fe Group of middle (?) Miocene to Pleistocene (?) age, diam 2 in, depth 266 ft, cased to 266. Lsd 7, 511.7 ft above msl. MP top of inner casing, 1.70 ft above lsd. Highest water level 167.12 below lsd, July 27, 1955; lowest 178.70 below lsd, Nov. 9, 1960. Records available: 1955-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
July 27, 1955	167.12	Dec. 14, 1956	170.81	May 5, 1958	174.08	Aug. 18, 1959	176.45
Aug. 22	167.32	Feb. 14, 1957	171.20	June 23	174.33	Oct. 12	176.70
Nov. 7	167.90	Apr. 1	171.54	Aug. 12	174.60	Dec. 1	176.96
Feb. 20, 1956	168.63	June 5	171.95	Oct. 13	174.96	Apr. 19, 1960	177.58
Apr. 18	169.09	Aug. 5	172.30	Dec. 3	175.19	June 22	177.90
June 7	169.44	Oct. 10	172.78	Feb. 10, 1959	175.49	Aug. 22	178.17
Aug. 8	169.84	Dec. 3	173.09	Apr. 22	176.18	Nov. 9	178.70
Oct. 3	170.30	Feb. 17, 1958	173.63	June 10	176.10		

### Torrance County

#### Estancia Valley

4. 8. 11. 433. F. D. Breedlove. Formerly R. B. Slease. Drilled unused water-table well in valley fill, diam 16 in, reported depth 180 ft, cased to 180. MP top of casing at high point on northwest side of well, 0.70 ft above lsd. Highest water level 82.93 below lsd, May 2, 1951; lowest 86.49 below lsd, Sept. 26, 1960. Records available: 1950-60.

Feb. 13, 1956	84.40	June 3, 1957	84.62	Sept. 9, 1958	85.05	Dec. 3, 1959	85.65
May 7	84.40	Sept. 4	84.88	Dec. 16	84.75	Feb. 11, 1960	85.50
Aug. 6	84.54	Dec. 5	84.59	Feb. 3, 1959	84.57	June 20	85.88
Nov. 5	84.54	Feb. 10, 1958	84.47	June 15	85.15	Sept. 26	86.49
Feb. 4, 1957	84.44	June 2	84.39	Sept. 10	86.14	Dec. 14	85.65

5. 8. 8. 424. A. T. Austin. Drilled irrigation water-table well in valley fill, diam 20 in, reported depth 204 ft, cased to 98. MP top of casing, 0.80 ft above lsd. Highest water level 62.03 below lsd, Mar. 23, 1948; lowest 89.95 below lsd, Sept. 26, 1960. Records available: 1948-60.

Feb. 14, 1956	80.63	June 3, 1957	85.85	Sept. 9, 1958	89.50	Dec. 3, 1959	84.85
May 7	a98.80	Sept. 4	89.05	Dec. 16	83.75	Feb. 11, 1960	82.85
Aug. 6	87.76	Dec. 5	85.62	Feb. 3, 1959	82.23	June 20	85.49
Nov. 5	87.71	Feb. 11, 1958	83.38	June 15	a11.55	Sept. 26	89.95
Feb. 4, 1957	84.06	June 2	82.67	Sept. 10	87.74	Dec. 14	86.33

a Well being pumped.

6. 8. 32. 212. Revis Strong. Formerly O. R. Ethridge. Drilled irrigation water-table well in valley fill, diam 18 in, reported depth 209 ft, cased to 84. MP top of 1½-in hole in pump-base, 0.04 ft above lsd. Highest water level 23.22 below lsd, Feb. 18, 1947; lowest 42.24 below lsd, Sept. 26, 1960. Records available: 1947-60.

Feb. 15, 1956	35.84	June 3, 1957	39.49	Sept. 10, 1958	41.26	Dec. 3, 1959	40.09
May 7	a71.21	Sept. 4	40.55	Dec. 16	39.35	Feb. 12, 1960	39.53
Aug. 6	37.73	Dec. 5	38.48	Feb. 4, 1959	38.91	June 20	40.50
Nov. 5	38.55	Feb. 11, 1958	38.23	June 15	39.89	Sept. 26	42.24
Feb. 5, 1957	37.91	June 2	38.61	Sept. 10	41.25	Dec. 14	41.06

a Well being pumped.

6. 9. 11. 211. R. O. Brown. Formerly H. E. Means. Drilled irrigation water-table well in valley fill, diam 18 in, reported depth 148 ft, cased to 140. MP top of casing, 0.75 ft above lsd. Highest water level 5.07 below lsd, May 4, 1949; lowest 13.55 below lsd, May 7, 1956. Records available: 1949-60.

Feb. 14, 1956	8.08	June 3, 1957	9.43	Sept. 10, 1958	8.80	Dec. 3, 1959	7.50
May 7	13.55	Sept. 4	8.67	Dec. 16	7.69	Feb. 12, 1960	7.35
Aug. 6	6.43	Dec. 5	7.83	Feb. 2, 1959	7.52	June 20	7.72
Nov. 5	8.97	Feb. 11, 1958	7.64	June 16	8.11	Sept. 26	8.60
Feb. 6, 1957	8.15	June 2	8.06	Sept. 9	8.15	Dec. 14	7.40

7. 8. 27. 221. F. C. Pace. Drilled unused water-table well in valley fill, diam 6 in, depth 61 ft, cased to 15. Lsd 6, 185 ft above msl. MP top of recorder shelter shelf, 3.70 ft above lsd. Highest water level 19.06 below lsd, May 7-10, 1947; lowest 43.42 below lsd, Oct. 11-13, 1960. Records available: 1941-60. For additional measurements, see Reeder and others (1960b and c).

## 7.8.27.221--Continued.

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	32.63	31.93	31.48	31.90	33.81	36.38	.....	39.61	.....	.....	39.91	38.04
10	32.58	31.82	31.43	32.43	34.34	36.73	.....	39.87	.....	40.60	39.49	37.78
15	32.42	31.81	31.44	32.79	34.93	.....	.....	40.12	.....	40.45	39.18	37.64
20	32.30	31.80	31.30	33.11	35.37	.....	.....	40.34	.....	40.29	38.89	37.43
25	32.21	31.67	31.23	33.24	35.70	.....	.....	40.54	.....	40.15	38.60	37.36
Eom	32.03	31.58	31.41	33.50	36.04	.....	39.32	.....	.....	40.00	38.31	37.08

1957

5	36.95	36.22	35.51	34.97	35.04	37.09	37.94	39.71	39.29	38.91	37.49	36.43
10	36.83	36.10	35.39	34.83	35.46	37.44	38.16	39.69	39.07	38.67	37.33	36.39
15	36.64	35.97	35.35	34.78	35.89	37.78	38.53	39.58	39.27	38.41	37.09	36.25
20	36.46	35.84	35.19	34.83	36.27	38.01	38.98	39.59	39.42	38.14	36.99	36.14
25	36.38	35.70	35.15	34.92	36.70	37.95	39.21	39.55	39.41	38.00	36.79	36.04
Eom	36.25	35.65	35.02	34.79	36.96	38.04	39.42	39.45	39.19	37.67	36.67	35.94

1958

5	35.83	35.23	34.87	34.53	34.25	35.33	37.89	40.36	41.65	39.91	.....	.....
10	35.62	35.17	34.87	34.49	34.20	35.94	38.19	40.71	41.73	39.63	.....	.....
15	35.64	35.19	34.75	34.44	34.13	36.57	38.60	41.02	41.43	39.36	.....	.....
20	35.47	35.07	34.69	34.34	34.08	37.08	39.00	41.32	40.99	39.09	.....	37.19
25	35.41	34.99	34.61	34.29	34.19	37.32	39.47	41.40	40.59	38.93	.....	37.03
Eom	35.40	34.97	34.52	34.21	34.67	37.62	39.94	41.35	40.27	.....	.....	37.00

1959

5	.....	.....	.....	.....	.....	.....	37.97	40.51	.....	41.07	39.51	38.49
10	.....	.....	.....	.....	.....	.....	38.29	.....	41.12	40.75	39.27	38.32
15	.....	.....	.....	.....	.....	b37.23	38.61	.....	41.29	40.43	39.09	38.21
20	.....	.....	.....	.....	.....	37.80	39.02	.....	41.52	40.14	38.12	.....
25	.....	.....	.....	.....	.....	37.93	39.51	.....	41.66	39.89	.....	38.02
Eom	.....	.....	.....	.....	.....	37.93	40.16	.....	41.36	39.69	.....	37.75

1960

5	37.75	37.29	36.85	36.52	37.45	40.45	40.82	40.91	42.52	43.31	41.92	40.57
10	37.70	37.18	36.74	36.41	37.98	40.81	41.16	41.33	42.70	43.39	41.61	40.42
15	37.57	37.12	36.65	36.36	38.35	40.65	41.01	41.61	.....	43.35	41.39	40.25
20	37.57	36.89	36.67	36.44	38.47	40.39	40.73	41.87	.....	43.02	41.19	40.09
25	37.41	37.06	36.60	36.55	39.35	40.10	40.44	42.11	.....	42.65	40.97	39.89
Eom	37.30	36.92	36.47	37.08	39.96	40.16	40.49	42.33	43.18	42.23	40.78	39.71

h Tape measurement.

8.8.35.322. A. C. Hibner. Drilled irrigation water-table well in valley fill (?), diam 16 in, reported depth 228 ft, cased to 110. Lsd 6, 240 ft above msl. MP top of casing, 0.75 ft above lsd. Highest water level 50.12 below lsd, May 28, 1947; lowest 85.35 below lsd, Sept. 26, 1960. Records available: 1947-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 17, 1956	77.22	June 4, 1957	81.23	Sept. 10, 1958	83.85	Dec. 4, 1959	82.00
May 8	79.28	Sept. 9	82.27	Dec. 17	81.49	Feb. 15, 1960	80.78
Aug. 7	81.80	Dec. 6	80.48	Feb. 5, 1959	80.64	June 21	81.99
Nov. 6	81.50	Feb. 12, 1958	79.51	June 16	82.10	Sept. 26	85.35
Feb. 6, 1957	79.60	June 3	80.30	Sept. 9	83.48	Dec. 15	81.60

## Union County

## Capulin Basin

29.28.18.341. City of Raton. 300 ft north of U. S. Highway 67-87 at Capulin. Drilled irrigation water-table well in cinders, diam 16 in, depth 78 ft, cased to 78. Lsd 6, 821.2 ft above msl. MP edge of 2-in hole in south side of casing, 1.20 ft above lsd. Highest water level 30.80 below lsd, Feb. 3, 1960; lowest 32.30 below lsd, Aug. 13, 1957. Records available: 1951, 1957-60.

July 11, 1951	30.94	Feb. 19, 1958	32.04	Feb. 12, 1959	31.71	Feb. 3, 1960	30.80
Feb. 18, 1957	32.13	Aug. 14	31.87	Aug. 20	32.00	Aug. 24	32.03
Aug. 13	32.30						

Valencia County

## Grants-Bluewater Area

10. 10. 26. 331. Monico Mirabal. Drilled irrigation water-table well in Glorieta Sandstone of Permian age, diam 16 in, depth 216 ft, cased to 216. Lsd 6,455 ft above msl. MP top of  $\frac{1}{2}$ -in hole in pumpbase, 1.00 ft above lsd. Highest water level 22.18 below lsd, Feb. 21, 1952; lowest 28.45 below lsd, Nov. 15, 1960. Records available: 1952-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 21, 1956	24.89	Dec. 11, 1956	26.44	Feb. 5, 1958	25.80	Nov. 4, 1959	28.35
Apr. 17	a47.79	Feb. 12, 1957	25.90	Aug. 19	27.43	Feb. 8, 1960	27.40
June 5	a47.00	May 7	27.18	Nov. 19	27.38	May 11	a49.52
Aug. 2	27.28	Aug. 1	27.17	Feb. 17, 1959	26.71	Aug. 26	a49.59
Oct. 2	a44.59	Nov. 13	26.08	May 5	27.85	Nov. 15	28.45

a Well being pumped.

11. 10. 27. 242. City of Grants. Formerly Ice Plant. Drilled industrial water-table well in San Andres Limestone of Permian age, diam 16 to 12 in, depth 158 ft, perforated 50-158. Lsd 6,480 ft above msl. MP top of 1-in hole in pumpbase, 1.35 ft above lsd. Highest water level 19.86 below lsd, Feb. 20, 1953; lowest 36.30 below lsd, Aug. 26, 1960. Records available: 1953-60.

Feb. 8, 1956	24.75	Dec. 11, 1956	29.15	May 15, 1958	28.78	Nov. 4, 1959	34.73
Apr. 17	24.58	Feb. 12, 1957	28.15	Aug. 18	32.77	Feb. 8, 1960	31.79
June 5	27.30	May 6	28.94	Nov. 20	32.13	May 11	32.35
27	29.33	Aug. 1	31.49	Feb. 17, 1959	31.13	Aug. 26	36.30
Aug. 2	30.19	Nov. 13	(a)	May 5	31.90	Nov. 15	35.47
Oct. 2	(a)	Feb. 5, 1958	28.60	Sept. 2	34.05		

a Well being pumped.

12. 10. 29. 434. A. R. Card. Drilled unused artesian well in San Andres Limestone of Permian age (previously reported San Andres Formation), diam 18 in, reported depth 205 ft, cased 0-150, perforated 93-130. MP lower edge of hole in north side of casing, 2.20 ft above lsd (since Aug. 1, 1956). Highest water level 65.46 below lsd, Oct. 14, 1944; lowest 100.74 below lsd, Nov. 3, 1959. Records available: 1944, 1946-60.

Feb. 7, 1956	93.87	Feb. 13, 1957	98.70	May 14, 1958	98.80	Nov. 3, 1959	100.74
Apr. 17	95.19	May 7	98.77	Aug. 19	98.72	Feb. 9, 1960	98.78
June 5	c98.84	Aug. 1	98.70	Nov. 11	98.80	May 11	98.82
Aug. 1	c98.65	Nov. 14	98.75	May 5, 1959	c98.79	Aug. 25	c102.10
Oct. 2	98.69	Feb. 4, 1958	98.77	Sept. 2	98.65	Nov. 15	98.85
Dec. 12	98.73						

c Nearby well being pumped.

12. 11. 9. 221. Formerly 12.11.9. 222. J. Church Co. Drilled unused water-table well in San Andres Limestone of Permian age (previously reported San Andres Formation), diam 18 in, depth 500 ft, cased to 500. MP top of casing at low point, 2.22 ft above lsd. Highest water level 115.70 below lsd, Feb. 27, 1946; lowest 193.51 below lsd, June 30, 1957. Records available: 1946-60. For additional measurements, see Reeder and others (1960b and c).

## Highest water level for the day, from recorder graph, 1956

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	.....	.....	.....	171.66	177.90	183.93	186.56	191.00	186.18	181.00	176.95
10	.....	.....	.....	.....	174.48	179.84	.....	.....	.....	185.56	180.15	176.66
15	.....	.....	.....	.....	174.32	180.02	.....	.....	.....	184.15	179.43	176.27
20	.....	.....	.....	166.82	178.95	180.43	185.62	.....	.....	184.00	178.78	175.85
25	.....	.....	.....	166.95	177.47	181.87	187.22	187.58	.....	183.05	178.17	175.66
Eom	.....	.....	.....	168.97	177.44	183.67	187.72	189.21	186.68	181.68	177.50	175.01

1957

5	174.73	172.71	170.98	171.80	.....	192.39	185.93	186.23	181.35	176.43	173.44	
10	174.42	172.34	170.69	172.37	184.53	187.47	192.52	186.51	185.94	180.16	175.94	173.21
15	173.92	171.98	170.52	174.44	186.53	188.00	190.76	186.35	186.07	179.23	175.29	172.83
20	173.50	171.68	170.24	178.20	187.64	189.30	190.18	186.81	184.43	178.37	174.86	172.30
25	173.23	171.42	170.17	.....	187.75	191.60	188.28	186.16	183.22	177.80	174.44	172.03
Eom	172.97	171.20	170.44	.....	186.64	192.81	186.40	186.87	182.44	176.99	174.08	171.49

1958

5	171.04	168.74	167.68	165.87	.....	162.33	164.68	164.45	168.06	168.04	.....	164.41
10	170.44	168.59	167.49	165.81	.....	162.59	165.12	165.33	167.82	167.83	.....	164.09
15	170.15	168.48	167.28	165.20	163.48	163.82	165.21	165.48	166.38	168.82	.....	163.88
20	169.64	168.28	167.06	.....	163.42	164.12	165.41	165.79	167.87	167.68	164.39	.....
25	.....	167.91	166.74	.....	162.84	164.51	165.68	166.24	168.16	166.99	164.76	.....
Eom	.....	167.89	166.31	.....	162.20	163.88	164.51	167.29	168.85	164.83	.....	164.83

## 12. 11. 9. 221--Continued.

Day	1959											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	.....	161.29	158.93	162.91	166.51	170.21	169.45	167.67	167.27	167.93	e167.90	165.94
10	.....	e161.17	158.08	163.92	166.21	170.41	171.12	168.25	167.49	167.51	167.32	165.57
15	.....	.....	158.11	164.25	167.04	169.07	170.63	167.94	168.03	167.20	166.88	165.37
20	161.68	159.62	160.37	165.50	167.95	169.33	169.84	168.38	168.49	167.20	166.61	165.29
25	161.76	159.46	161.04	165.17	167.46	169.40	168.55	168.53	169.15	167.41	166.27	165.00
Eom	161.59	159.41	161.76	166.12	168.79	169.05	167.78	167.56	168.33	168.88	166.19	164.44
1960												
5	164.51	e162.75	163.47	164.59	168.81	169.37	168.23	169.70	175.39	175.17	168.36	.....
10	164.30	163.03	163.66	164.96	169.31	170.02	167.30	169.89	174.48	173.11	167.63	.....
15	e163.86	162.91	163.70	165.64	169.45	170.93	166.83	170.19	174.78	171.65	167.03	.....
20	e163.68	163.13	163.86	166.13	169.35	171.05	167.00	e172.70	175.94	170.86	166.60	.....
25	e163.39	163.32	164.14	166.52	169.45	169.23	166.75	175.08	177.12	169.82	166.16	.....
Eom	e163.28	163.38	164.55	168.45	169.69	168.22	168.08	175.66	175.45	168.92	165.81	.....

e Estimated.

h Tape measurement.

12. 11. 9. 424. George Rowley. Drilled unused artesian well in San Andres Limestone of Permian age and Yesso Formation of lower Permian age, diam 16 in, reported depth 505 ft. Lsd 6,642 ft above msl. MP top of casing, 3.05 ft above lsd. Highest water level 93.75 below lsd, May 10, 1946; lowest 139.05 below lsd, Aug. 1, 1957. Records available: 1946-60.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Feb. 6, 1956	129.40	Feb. 12, 1957	134.50	Aug. 18, 1958	129.69	Nov. 3, 1959	129.23
Apr. 16	129.41	May 6	136.25	Nov. 11	129.23	Feb. 8, 1960	128.17
June 4	131.88	Aug. 1	139.05	Feb. 16, 1959	127.57	May 10	127.99
Aug. 1	134.80	Nov. 14	135.58	May 4	128.13	Aug. 25	129.77
Oct. 1	136.45	Feb. 4, 1958	133.92	Sept. 2	127.65	Nov. 14	131.93
Dec. 11	135.08	May 14	130.91				

12. 11. 14. 213. Duane (previously reported Dyan) Berryhill. Drilled unused water-table well in alluvium of Quaternary age, diam 4 in, depth 130 ft, surface casing to 5. Lsd 6,605.4 ft above msl. MP top of 4-in downspout, 2.95 ft above lsd (since Aug. 1, 1956). Highest water level 87.85 below lsd, May 4, 1959; lowest 101.39 below lsd, June 10, 1954. Records available: 1949-60.

Feb. 6, 1956	100.52	Feb. 13, 1957	93.84	Aug. 18, 1958	89.62	Nov. 3, 1959	88.47
Apr. 16	99.39	May 8	92.61	Nov. 19	89.34	Feb. 8, 1960	88.80
June 4	99.69	Aug. 1	92.51	Feb. 16, 1959	88.10	May 11	89.17
Aug. 1	97.93	Nov. 14	90.50	May 4	87.85	Aug. 25	89.55
Oct. 1	96.50	Feb. 4, 1958	91.13	Sept. 2	89.10	Nov. 14	89.44
Dec. 10	95.57	May 14	89.50				

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